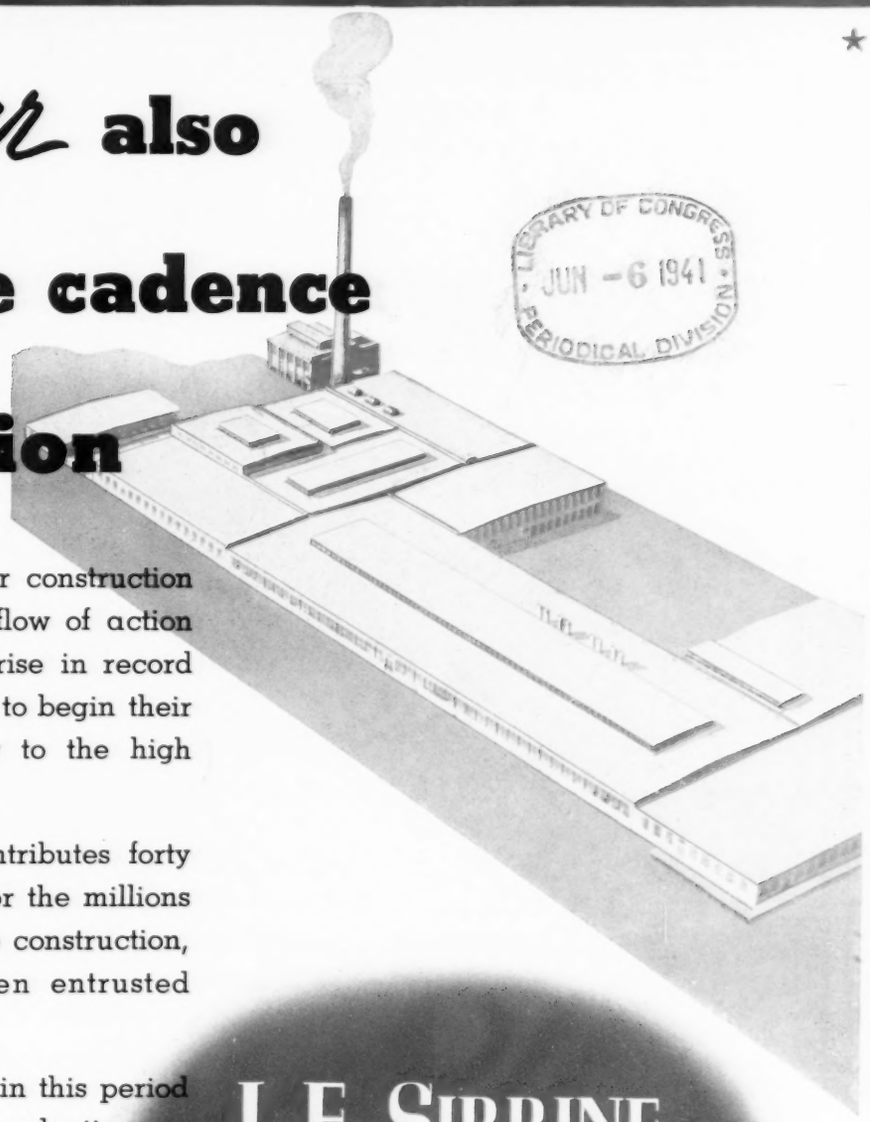
MAY COTTON 1941

SERVING THE Textile Industries

★ ★

THE *Engineer* also quickens the cadence of construction



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PERIODICAL DIVISION

It is the plan that sets the pace for construction and production. It coordinates the flow of action and materials that buildings may rise in record time, that machines may be erected to begin their tasks at a hum that rises rapidly to the high rhythm of capacity output.

This organization of Engineers contributes forty years of experience to their plans for the millions of dollars of industrial and defense construction, the supervision of which has been entrusted to them.

This experience is available to you in this period when Time is being calipered for production.

Engineers for 40 years

J. E. SIRRINE & COMPANY
GREENVILLE • SOUTH CAROLINA

INDUSTRIAL PLANTS • PLANS AND DESIGNS • POWER

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COMMERCIAL FACTORING

Will Keep YOUR Capital in YOUR Business

Every capital dollar tied up in your accounts receivable is in reality working for someone else. Every capital dollar thus tied up is a dollar not immediately available for profit opportunities that may call for immediate action.

That is why the service offered by Commercial Factors is one that you should investigate. Through Commercial factoring your current accounts receivable are immediately converted into cash—and you continue to receive cash for all subsequent shipments without changing your credit terms to customers.

Here, in one simple move, you eliminate credit losses and collection expense, reduce bookkeeping cost—expand your selling opportunities—and retain every possible dollar in liquid, available form for any business purpose.
Your inquiry will bring an immediate response. Write for the whole story today.

COMMERCIAL FACTORS CORPORATION

Fred'k Vietor & Achelis, Inc.
Established 1828

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Established 1838

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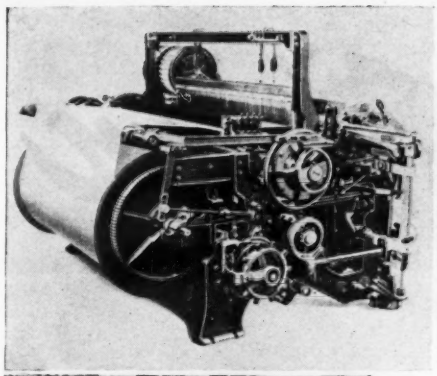
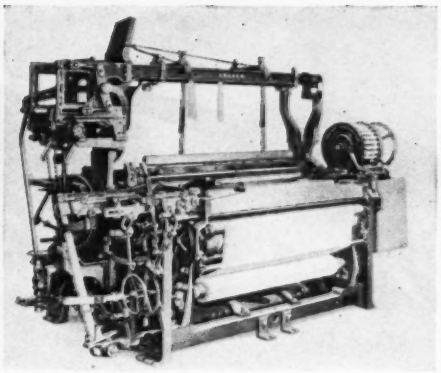
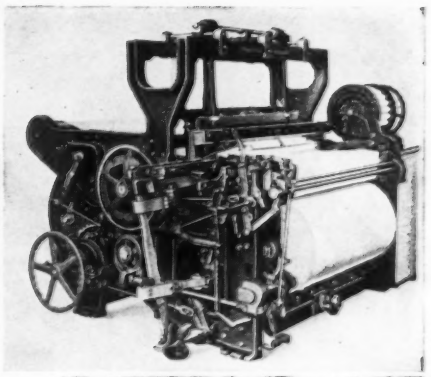
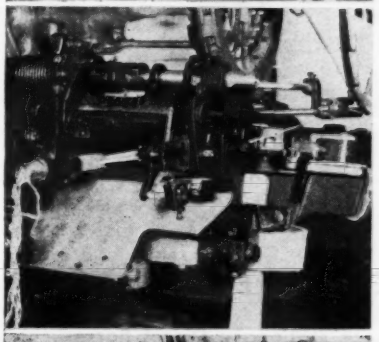
Established 1893

TWO PARK AVENUE, NEW YORK









Textile Show Exhibit
Now in Hopedale

You are cordially invited to the complete Draper Textile Show Exhibit, now open in the Draper Show Rooms in Hopedale.

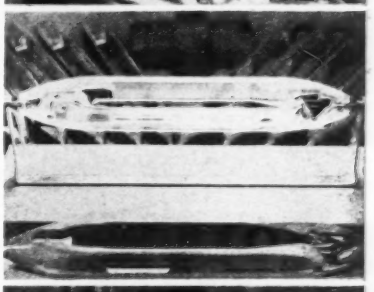
You will see all late developments in high speed weaving machinery:

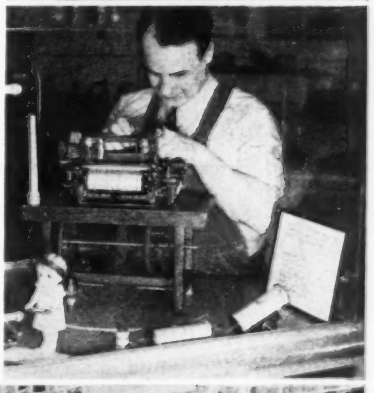
Three new rugged models of the X Series for Cotton weaves, the X-2, XP and XU;

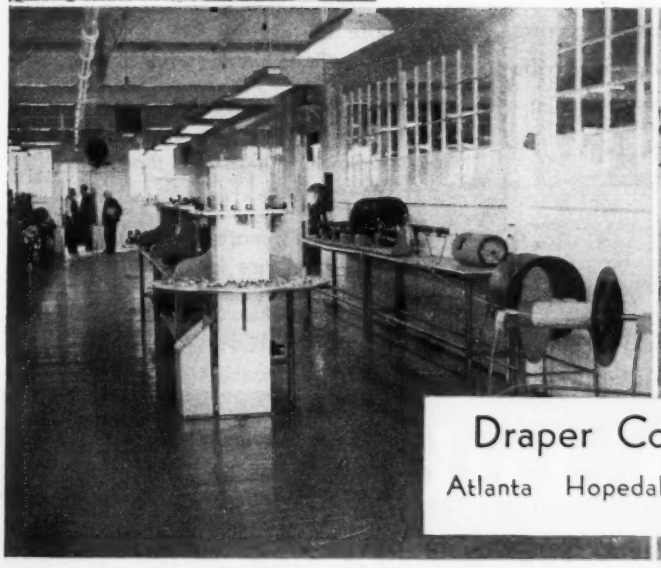
Two Rayon models, the XD and XK, so highly praised by weavers of rayon;

An interesting display of better repair parts that will help you select the improved parts you need for your looms.

Of especial interest will be the new X-2 Model, designed for the same range of weaves as the X, running smoothly and steadily at 225 Picks per Minute.







Draper Corporation

Atlanta Hopedale Spartanburg

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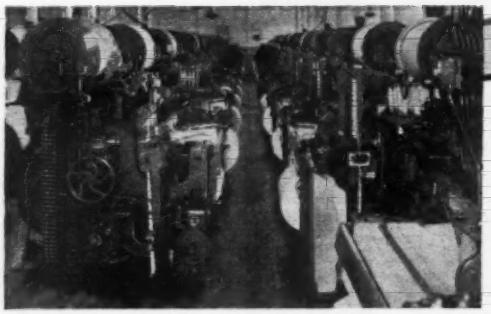
Volume 105. Number 5.

Oil that Stays on



CROMPTON & KNOWLES C3 automatic terry towel looms, undercam and Jacquards. Thousands of these and similar looms are kept in peak condition lubricated with Texaco.

YOU WILL ENJOY an entirely new freedom from spoilage due to oil, immediately you change to lubricants that *hang on* even in the face of continuous, violent loom vibration.

Scores of mills have practically eliminated losses due to oil spotting by lubricating looms and other equipment with *TEXACO STAZON*.

Texaco Stazon stays on bearing surfaces, assuring more efficient lubrication with fewer applications. They resist thinning out, creeping, splattering.

The preference for Texaco in the textile field is due to performance, and is duplicated in the fields listed in the panel.

For a Texaco Lubrication Engineer to cooperate in making savings in *your* plant, phone the nearest of more than 2300 Texaco distributing plants in the 48 States, or write:

The Texas Company, 135 East 42nd Street, New York, N. Y.

THEY PREFER TEXACO

★ More stationary Diesel horsepower in the U. S. is lubricated with Texaco than with any other brand.

★ More Diesel horsepower on streamlined trains in the U. S. is lubricated with Texaco than with all other brands combined.

★ More railroad rolling equipment in the U. S. is lubricated with Texaco than with any other brand.

★ More tourists use Texaco *Fire-Chief* Gasoline than any other brand.

★ More scheduled airline mileage within the U. S. and to other countries is flown with Texaco than with any other brand.

★ More buses, more bus lines and more bus-miles are lubricated with Texaco than with any other brand.

"BALL AND ROLLER BEARING LUBRICATION" Booklet, 44 pages on their construction, installation and lubrication with *Texaco Starfak*. Yours for the asking.

Texaco Dealers invite you to enjoy FRED ALLEN in a full-hour program every Wednesday night. CBS, 9:00 E.D.T., 8:00 E.S.T.; 8:00 C.D.T., 7:00 C.S.T.; 9:00 M.S.T.; 8:00 P.S.T.

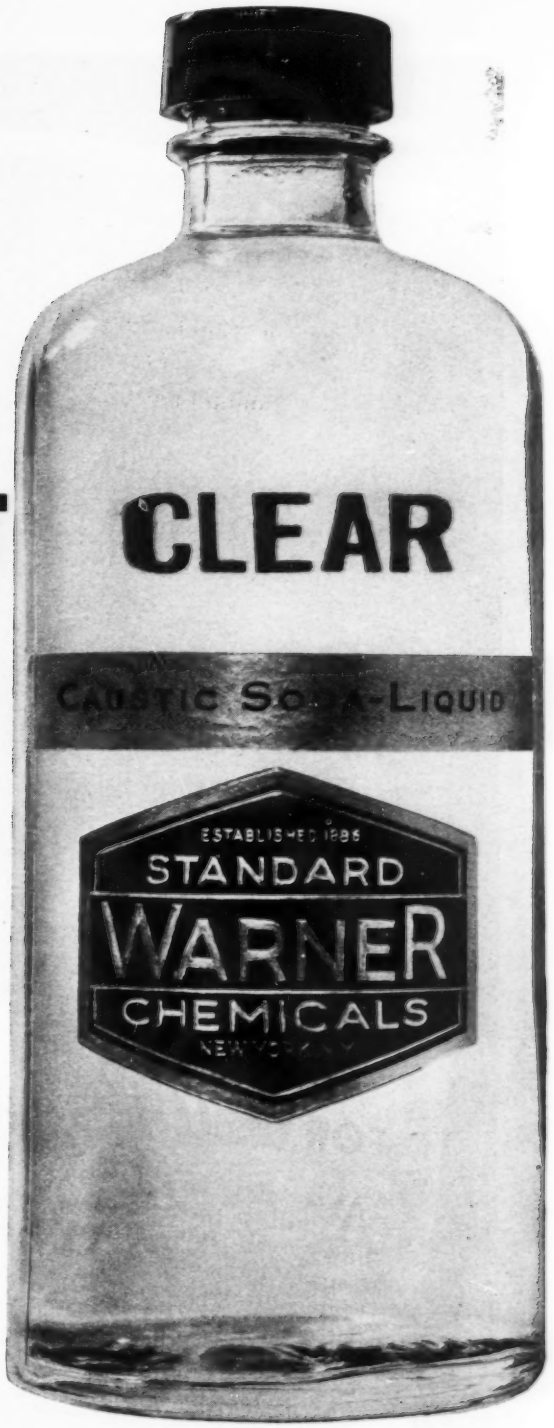
TEXACO

REG. T.M.

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

WE MAKE IT CLEAR



Warner Textile Grade Caustic Soda has made it clear to many prominent mercerizers, bleachers, dyers and finishers that this high quality caustic soda gives excellent results in textile processing.

Low in salt, low in iron, low in turbidity, Warner Textile Grade Caustic Soda is furnished in standard 50% and 70% concentrations — as well as in 73% concentration shipped in specially-lined tank cars. Also flake and solid.

Why not order a car of Warner Textile Grade Caustic Soda for prompt shipment from our conveniently nearby plant at South Charleston, West Virginia?

WARNER TEXTILE GRADE CAUSTIC SODA

OTHER WARNER CHEMICALS

Tetra Sodium Pyrophosphate
Phosphoric Acid
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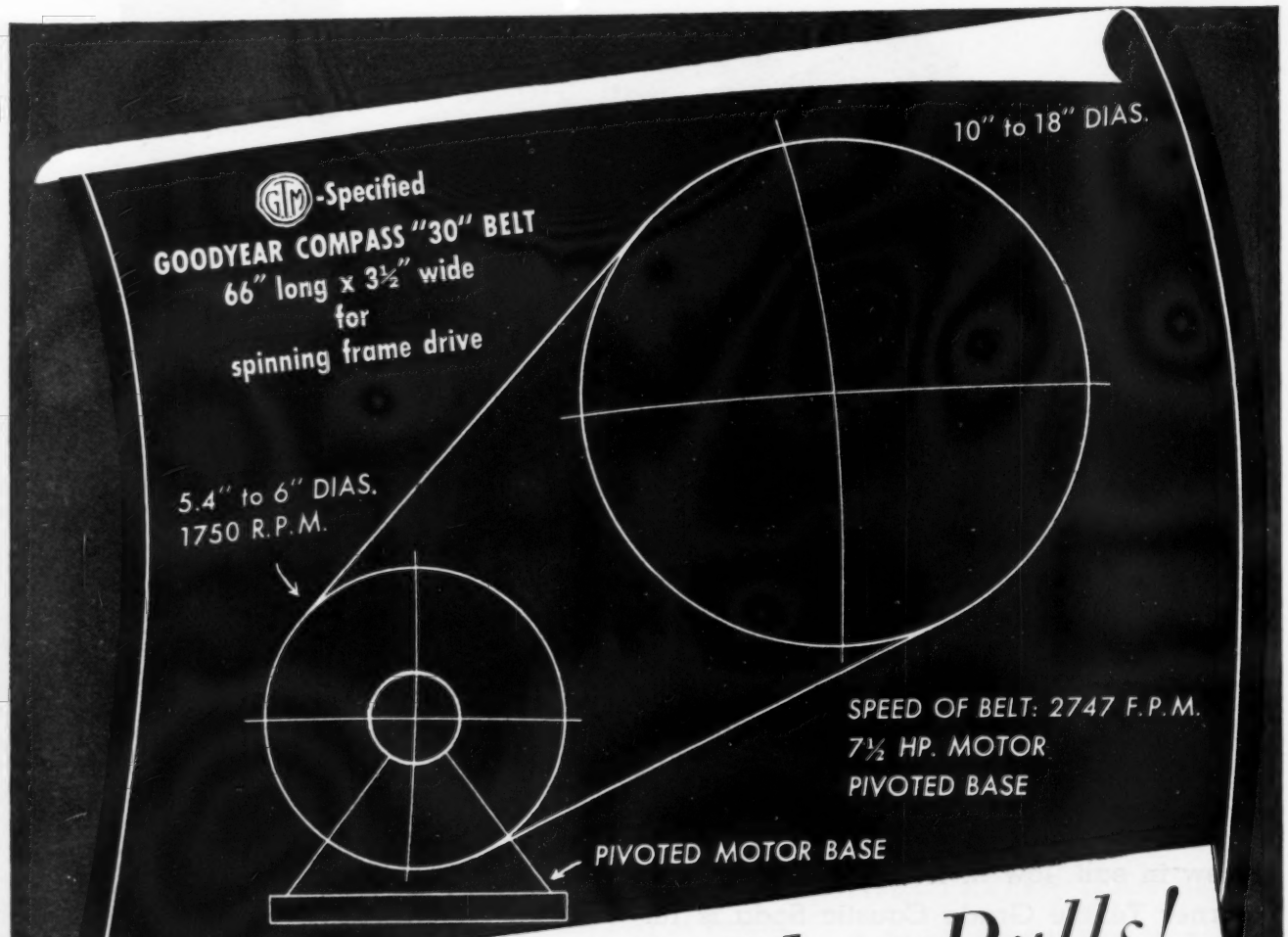
Carbon Tetrachloride
Chlorine, Liquid
Trichlorethylene
Perchlorethylene
Carbon Bisulfide
Sodium Sulfide
Epsom Salt
Hydrogen Peroxide

CHEMICAL WARNER COMPANY

DIVISION OF
WESTVACO CHLORINE PRODUCTS CORPORATION

CHRYSLER BUILDING, NEW YORK, N. Y.

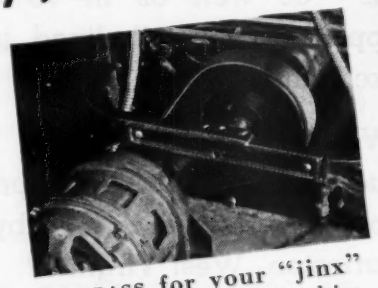


FOR *Long Life* ON *Short Pulls!*

At one of the largest textile mills in the South they have over 100 spinning frames operated by short center pivoted base drives with 6" pulleys. As you can well imagine, this is a stiff belting assignment. In fact, the constant strain of flexing around the small pulleys was too much for conventional belts. Some slipped badly, wore out in scarcely thirty days. Others did expensive damage to the wooden pulleys.

Then the G.T.M.—Goodyear Technical Man – recommended Goodyear COMPASS "30," truly endless belts. On an eighty hour per week schedule the COMPASSES have given first-rate service for periods averaging two years or more!

There's a simple explanation for the sensational performance of COMPASS on such difficult drives. COMPASS belts are 25% thinner than others of equal horsepower capacity – insuring far less internal friction, longer flex-life and an ever-tight, speed-holding grip on the pulleys. That's why they succeed where ordinary belts fail. Why not ask the G.T.M. to recommend



COMPASS for your "jinx" drives? A line will bring him to your office. Write: Goodyear, Akron, Ohio or Los Angeles, California – or phone the nearest Goodyear Mechanical Rubber Goods Distributor.

THE GREATEST NAME IN RUBBER

GOODYEAR

Compass—T. M. The Goodyear Tire & Rubber Company

QUALITY
SIMPLICITY
PRODUCTIVITY

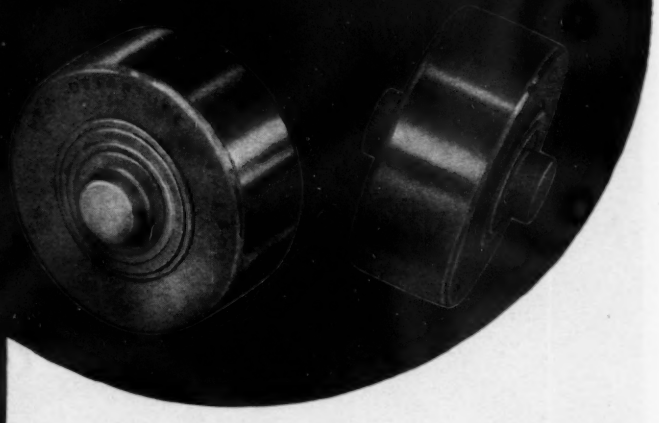
3 *Cardinal points of the new Whitin Model "H" Comber*

Whitin Machine Works

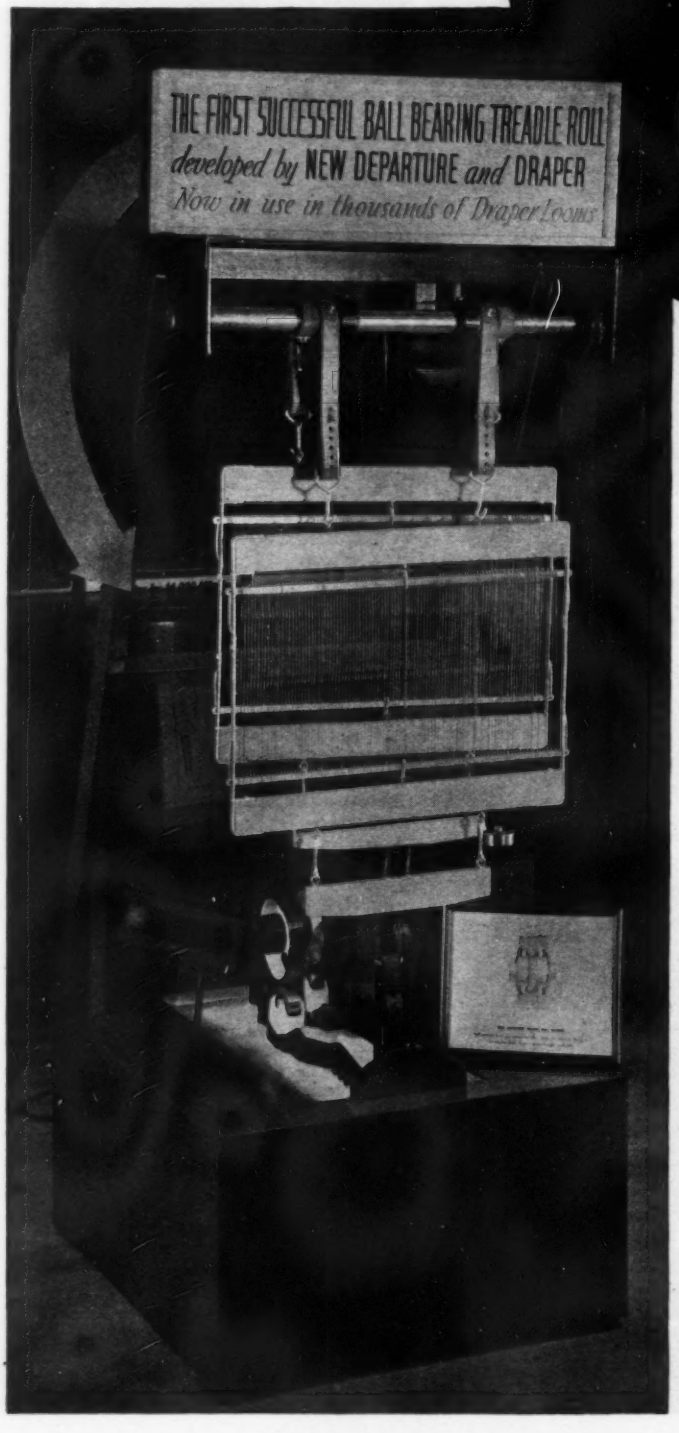
Whitinsville, Mass., U. S. A.

Charlotte, N. C. Atlanta, Ga.

THE HIT OF THE SHOW!

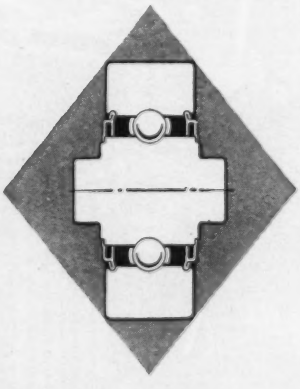


Below: Animated display of parts of a Draper Loom shown at the New Departure exhibit at Southern Textile Exposition, Greenville, S.C. Note treadle roll bearing. A focal point of lively interest.


THE FIRST SUCCESSFUL BALL BEARING TREADLE ROLL
developed by NEW DEPARTURE and DRAPER
Now in use in thousands of Draper Looms

Hundreds of practical mill men expressed enthusiasm for this first successful anti-friction cam or Treadle Roll Bearing, developed by New Departure and Draper.

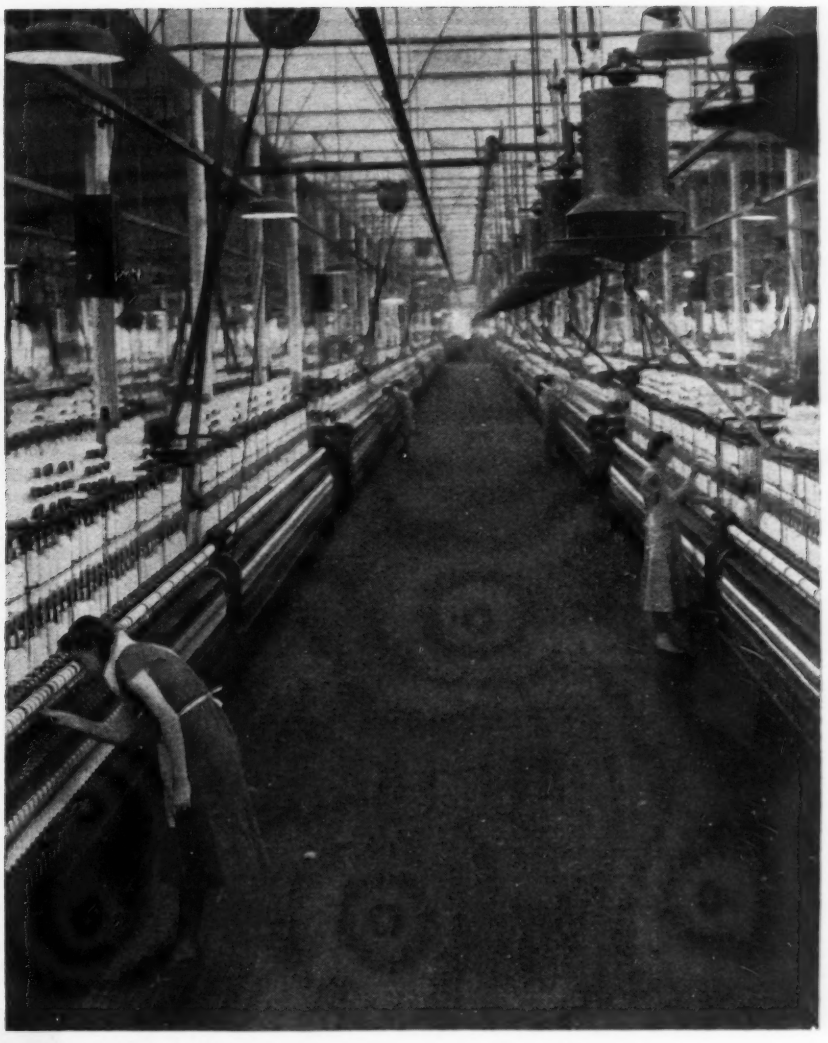
Heavily proportioned to absorb shock, self-sealed against lint and lubricated-for-life, it practically eliminates shut-downs for roll replacement—increases cam life and reduces flash fire hazard. Made by New Departure, sold by Draper.



NEW DEPARTURE

BALL BEARINGS

3004



CONSIDER

Maple Floors

FOR GREATER EFFICIENCY

WORKERS' comfort goes hand-in-hand with efficiency. Smooth Hard Maple Flooring is a *comfortable* floor that's also long-wearing. It is warm and dry — prevents loss of body warmth through conduction — resilient, it holds off fatigue, thereby cutting down the accidents and mistakes that occur because workers are tired.

And Hard Maple Flooring not only keeps efficiency *up* but keeps costs *down.* Its lower maintenance cost and long life pay maximum return on capital investment. So smooth-surfaced, this floor creates no dust, doesn't catch lint, can be cleaned by brushing alone, speeds up traffic, and cuts floor costs all along the line.

Consider workers' comfort and efficiency — and costs as well — and you will find Hard Maple the ideal floor for mills. Ask your engineers about trademarked **MFMA** Northern Hard Maple — slow-grown in Northern forests — Maple at its best.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1794 McCormick Building, Chicago, Illinois

See our catalog data in Sweet's, Sec. 11/88. Write for photographic folder on Northern Hard Maple, and leaflet on heavy-duty finishes for old or new floors.

Floor *with* **MFMA** Maple

REG. U. S. PAT. OFF.

(NORTHERN HARD)

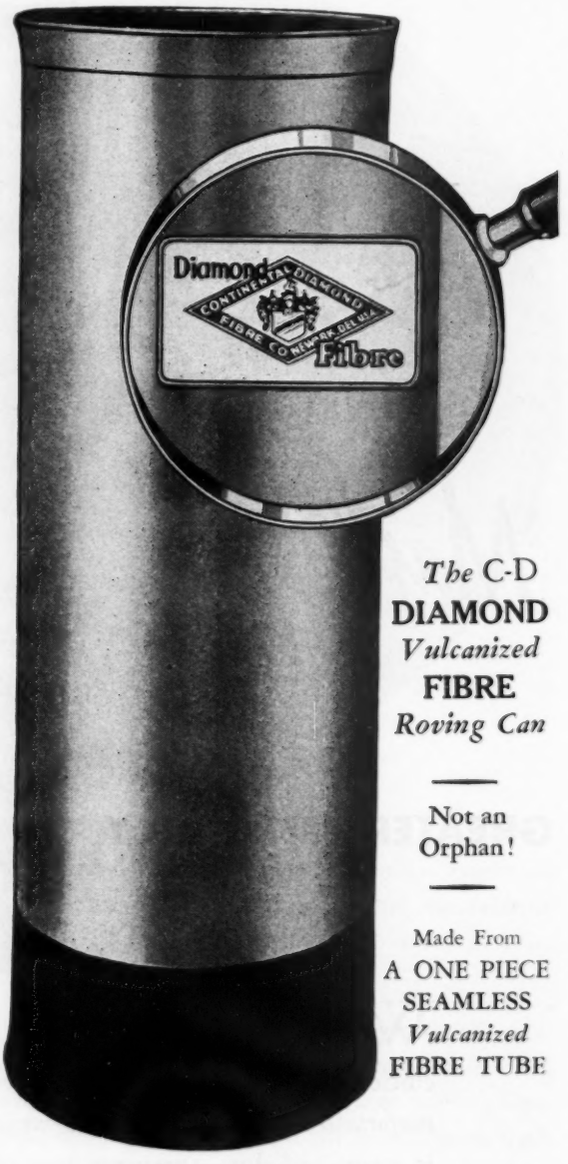
PEDIGREE COUNTS...

in Dogs...in Horses...in Cattle... and in Roving Cans, Too

C-D Roving cans have a proud lineage. For more than 41 years Diamond Vulcanized Fibre Roving Cans have proved a paying investment for the Textile Industry. In many plants today there are DIAMOND FIBRE Roving Cans over 25 years old, still giving efficient sturdy service.

Roving Cans are an important adjunct to your spindles. They must perform their function smoothly and continuously. Dislocated bottoms . . . cracked sides . . . snarling rivets . . . rasping tops — ***damage*** roving, ***injure*** workmen, ***retard*** production.

Make sure all your Roving Cans are C-D Pedigreed . . . the DIAMOND Vulcanized FIBRE label is your assurance of the best money can buy in Roving Cans —and in all types of material handling containers; boxes . . . barrels . . . trucks . . . baskets . . . trays.



The C-D
DIAMOND
Vulcanized
FIBRE
Roving Can

Not an Orphan!

Made From
A ONE PIECE
SEAMLESS
Vulcanized
FIBRE TUBE

WHAT'S IN A NAME?

C-D's name on a container, is your emblem of protection.

There's no need to endanger production schedules . . . to risk damage to materials . . . to jeopardize profits . . . ***make sure all your material handling equipment is labelled DIAMOND Vulcanized FIBRE.***

Get your file up to date on the complete C-D Hollow Ware line. Send for the new DIAMOND FIBRE Hollow Ware Catalog HW-9.

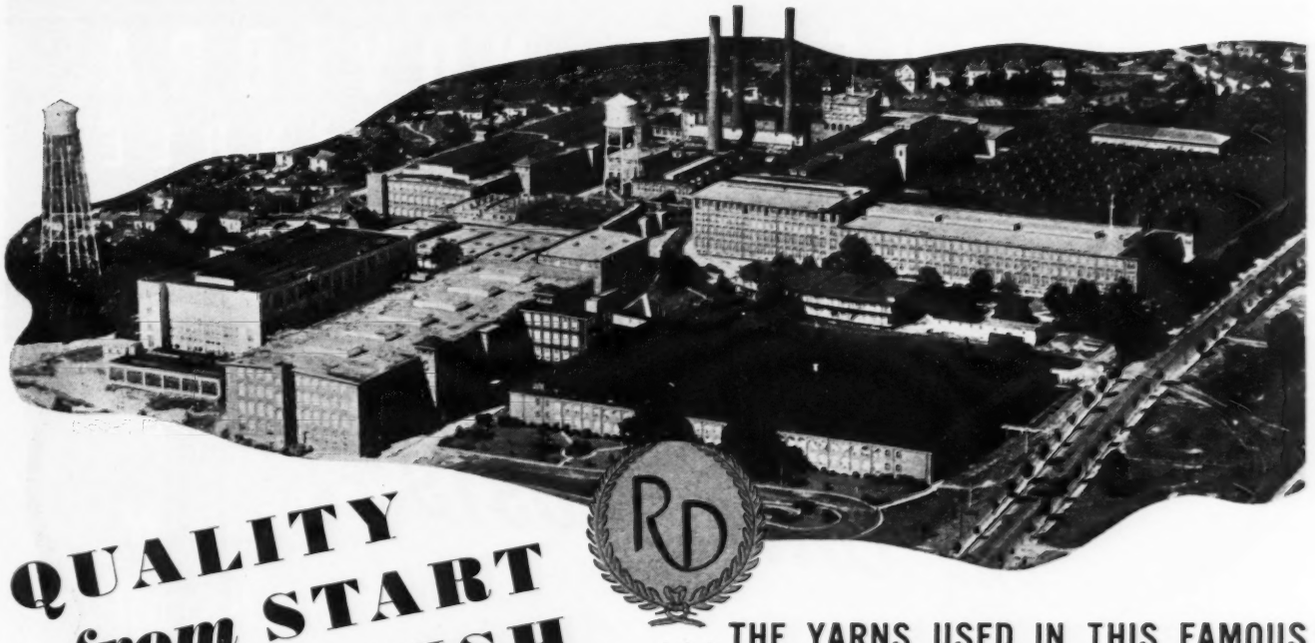
DIAMOND Vulcanized FIBRE Hollow Ware
Boxes • Barrels • Trucks • Cans • Baskets • Trays

CORRECTLY DESIGNED
ACCURATELY BUILT

CONTINENTAL-DIAMOND FIBRE COMPANY

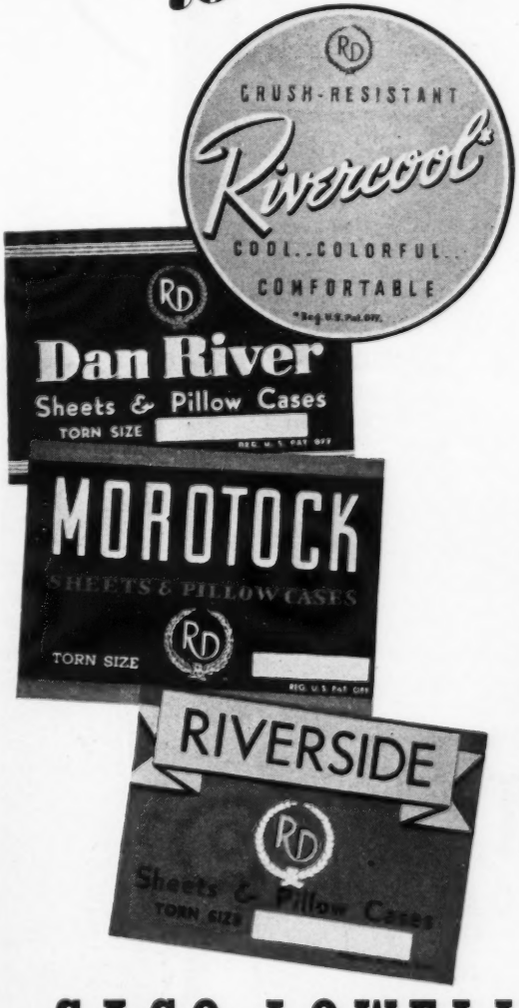
Southern Warehouse & Sales Office: Spartanburg, S. C. C. L. Simmons, Mgr.

NEWARK, DELAWARE BRIDGEPORT, PA. VALPARAISO, IND. TORONTO, CAN.



QUALITY *from* START *to* FINISH

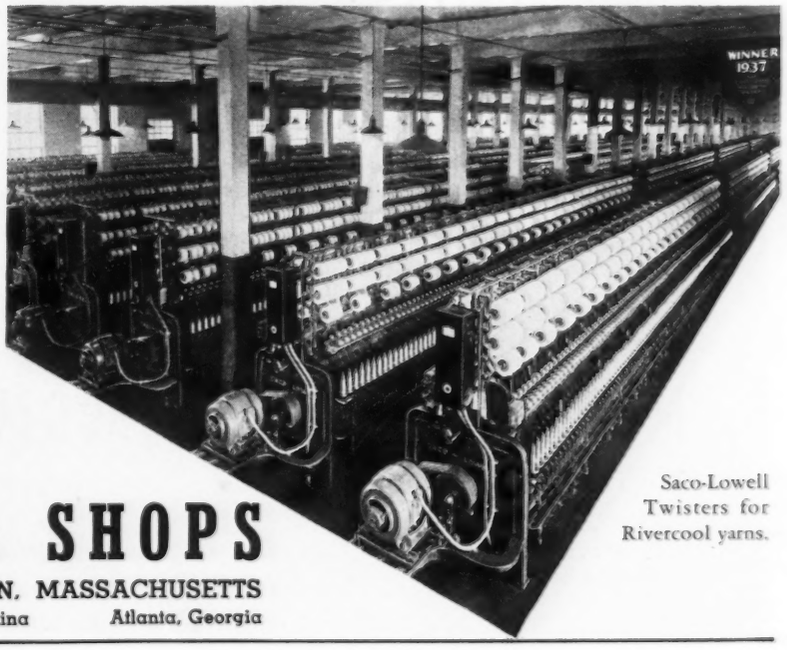
. . . THE YARNS USED IN THIS FAMOUS LINE OF FINE FABRICS ARE MADE ON SACO-LOWELL MACHINERY.



The fabrics bearing these labels are nationally known for their outstanding value and quality . . . and every single step in their manufacture is planned for *"quality from start to finish."*

It is significant that the many diversified products manufactured by Riverside and Dan River Mills are made from yarns processed on Saco-Lowell equipment. In this world-famous mill Saco-Lowell openers and pickers, cards, drawing and roving frames, spinning and twisting frames, warpers and slashers are used extensively.

For Dan River, like many other mills in this country and abroad, Saco-Lowell equipment is a sound and profitable investment, safe-guarding the high quality and reputation of the finished merchandise. Even though your mill may not be as large as Dan River, it, too, can profit through the use of Saco-Lowell equipment.



Saco-Lowell Twisters for Rivercool yarns.

SACO-LOWELL SHOPS

60 BATTERYMARCH STREET, BOSTON, MASSACHUSETTS

Charlotte, No. Carolina Greenville, So. Carolina Atlanta, Georgia

MARQUETTE NOVIBRA
ROLLER BEARING SPINDLE

"This New Spindle is giving us FASTER PRODUCTION and LOWER COSTS"

MARQUETTE TEXTILE SPINDLES NOVIBRA

Protected Under One or More of the Following U. S. Patents: 2168247, 2168248, 2168249.

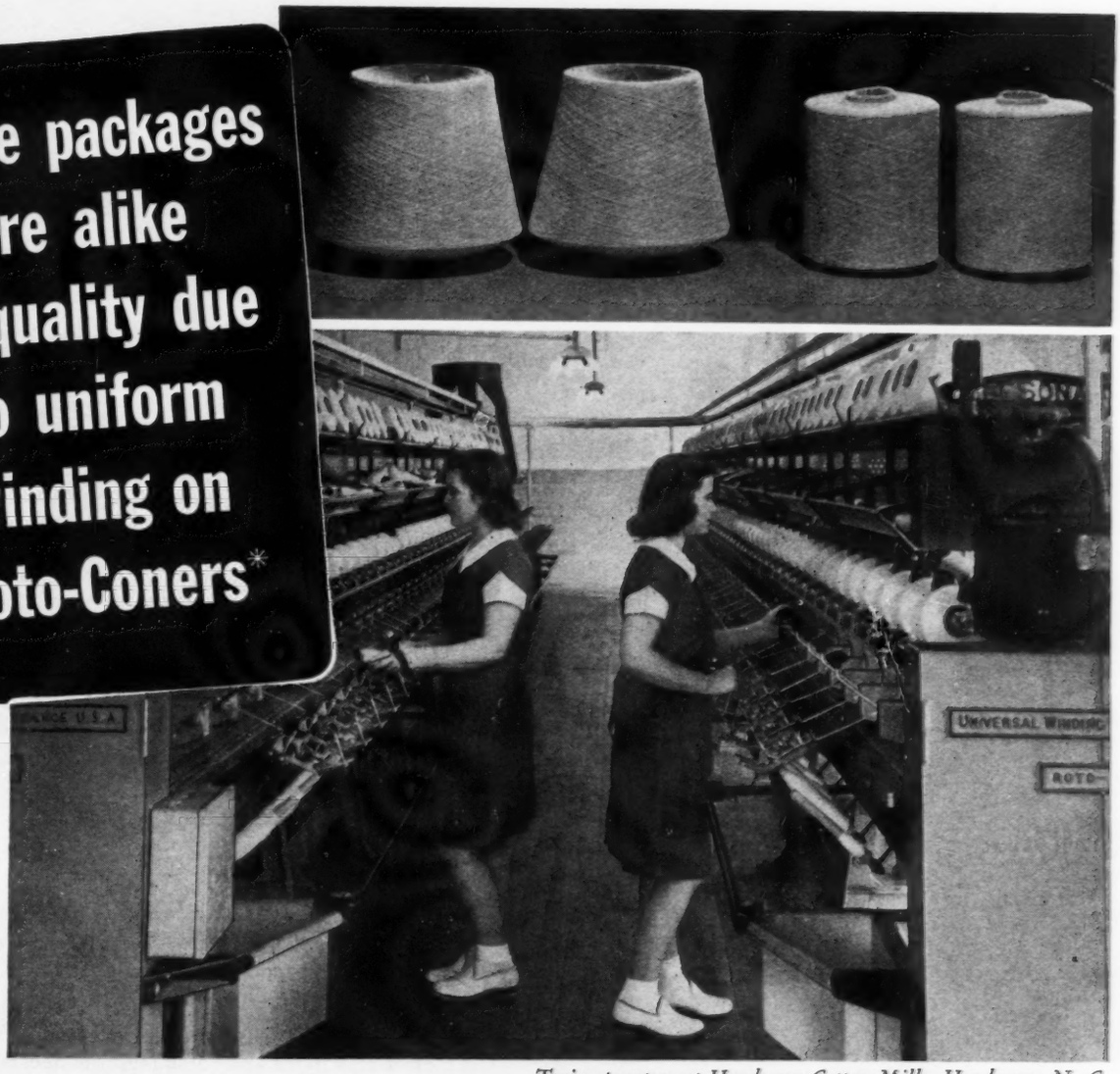
THE MARQUETTE METAL PRODUCTS COMPANY

1170 Galewood Drive • Cleveland, Ohio

BYRD MILLER
908 Woodside Bldg.
Greenville, S. C.

STANLEY MORTON
25 West Dorrance St.
Kingston, Pa.

These packages are alike in quality due to uniform winding on Roto-Coners*



Twin operators at Henderson Cotton Mills, Henderson, N. C.

The word *uniform*—referring to packages of yarn—can mean

(1) uniform quality from package to package

(2) uniform density throughout the package

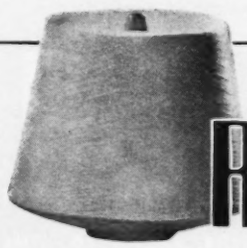
Knitting packages must be uniform in order to prevent a variation in the quality of the knitted fabric. Dyeing packages must be uniform to insure even penetration of the dye.

Quality of yarn wound on the Roto-Coner* is uniform from package to package. Yarn speed is constant, and the precision-type slub catchers are uniformly set from spindle to spindle and locked with both blades parallel.

Density is uniform in each package. The winding package is positioned against the back of the driving roll so that pressure is not added to the inside layers as the weight of the package increases.

See our 15-page catalog in TEXTILE YEARBOOK

*Reg. U. S. Pat. Off.



ROTO-CONER

LEESONA

Reg. U. S. Pat. Off.

OPEN-WIND CONES FOR KNITTING

DYEING PACKAGES — PARALLEL TUBES FOR TWISTING

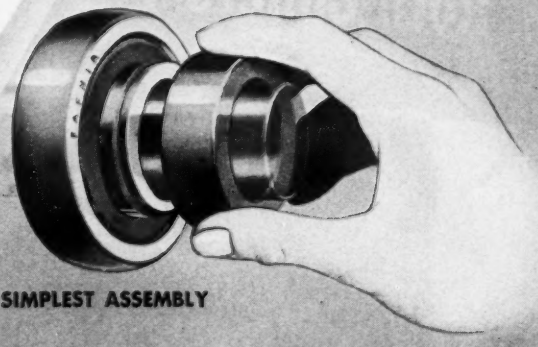
UNIVERSAL WINDING COMPANY P. O. BOX 1605 **PROVIDENCE, R. I.**

BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA

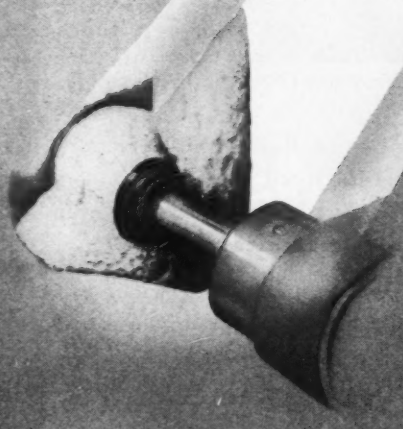
How big is a Dust Particle?

DUST-PROOF

COMPACT



SIMPLEST ASSEMBLY



The answer – small enough to work through all but the best of bearing seals, and still large enough to cause destructive wear in a bearing.

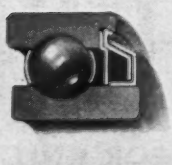
But no dust particle gets by the labyrinth plate shields and steel plate slinger of the new Fafnir Mechani-Seal Ball Bearing. Tests up to 8,000 hours in a "Torture Chamber" filled with whirling cement dust offer conclusive proof.

The new "streamlined" Fafnir Transmission Units incorporating the Mechani-Seal bearing – of which the LAK Pillow Block is typical – provide 100% effective mechanical sealing with no rubbing members. And the bevelled outer ring of the bearing (with non-obstructing grease hole) compensates for any slight misalignment should it occur. Combining the ease of installation of the Fafnir Wide Inner Ring Ball Bearing and Self-Locking Collar, added compactness and super dust-protection, the Fafnir Pillow Block is the leader of America's most convenient, dependable transmission unit line. The Fafnir Bearing Company, New Britain, Connecticut.

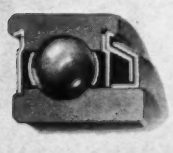
LCJ FLANGE CARTRIDGE Bolts to a frame or housing

LC CYLINDRICAL CARTRIDGE Press-fitted into a machined bore

L TYPE Single Seal



LD TYPE Seal and Shield

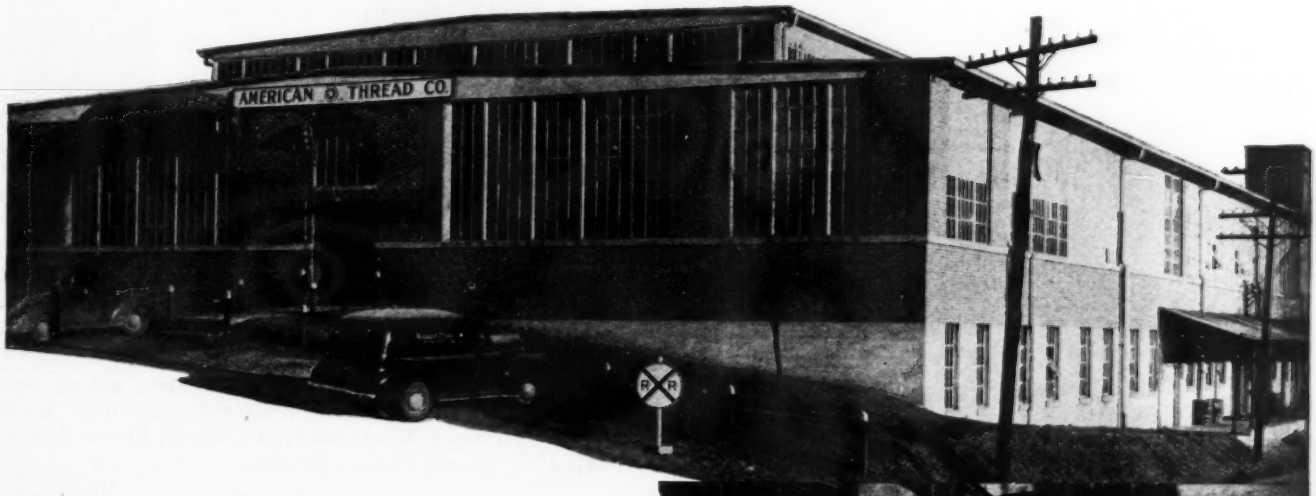


FAFNIR
Ball Bearings

THE BALANCED LINE
MOST COMPLETE IN AMERICA

Bigger business for American Thread Co. ...and SOFT WATER helps!

Another Permutit success story!*



Permutit equipment needed to produce quality thread,

says Mr. Don Maddox, Agent

The American Thread Co., Bristol, Tenn., does bleaching and dyeing of thread, and in order to do this, must have the best water conditions possible. The raw water is variable and very hard. So ten years ago they installed Permutit Water Softening equipment. Now the water is uniformly soft and clear. Mr. Maddox says Permutit has been a contributing factor in the company's enlarged business.

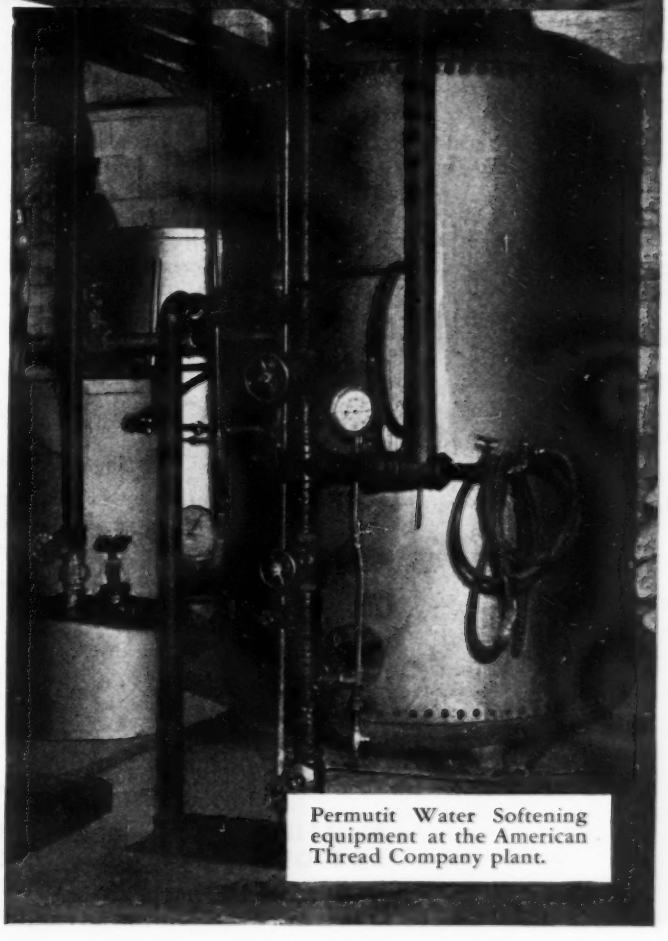
Permutit installations offer the greatest protection in process water, because they're designed to suit individual plant requirements. This means bigger savings, too...in soaps, detergents, dyes, in boiler repairs.

Write for free booklet to The Permutit Company, Dept. B.I., 330 West 42nd Street, New York, N.Y.

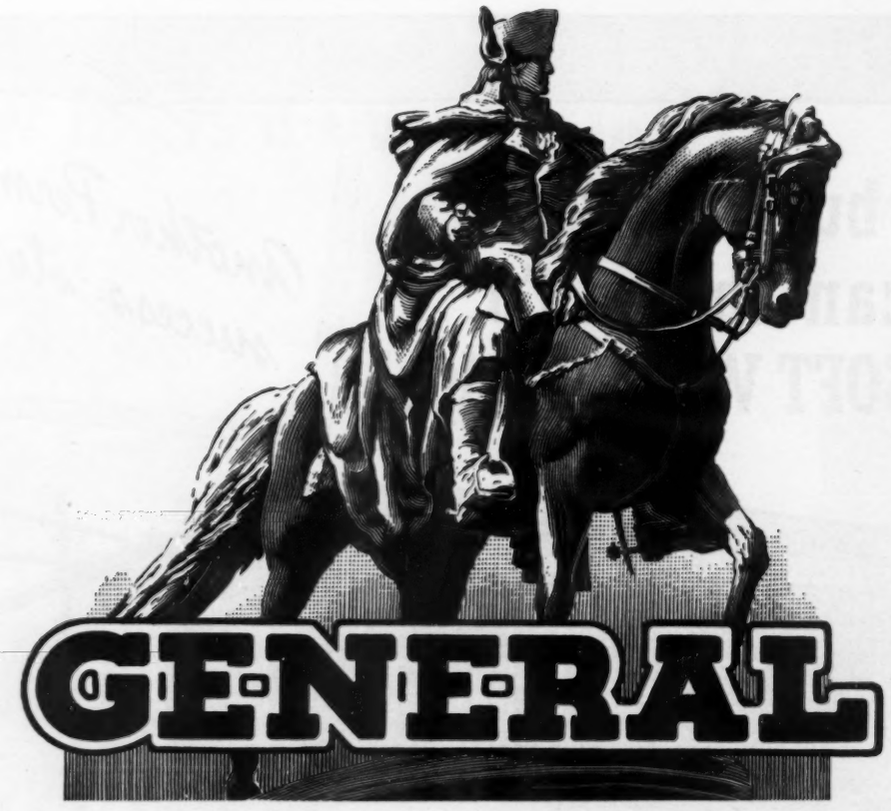
*Trademark Reg. U. S. Pat. Off.

PERMUTIT

WATER CONDITIONING HEADQUARTERS



Permutit Water Softening equipment at the American Thread Company plant.



RODA — High grade gas, by-product and steam coal from Wise County, Va., on the Interstate Railroad.

DENDRON — High grade gas, by-product, steam and domestic coal from Wise County, Va., on the Interstate Railroad.

STONEGA — High grade, high volatile steam and by-product coal from Wise County, Va., on the Interstate Railroad.

PREMIX STOKER — A laboratory controlled product blended to meet exacting stoker requirements. From Wise County, Va., on the Interstate Railroad.

COKE — Roda and Stonega from Wise County, Va., and Connellsville Coke from Pennsylvania.

CRITERION COAL — High grade gas, by-product, steam and domestic coal—Pittsburgh seam from Irwin Basin, Westmoreland County, Pennsylvania, on the Penna. Railroad.

CROZER — Genuine Third Vein Pocahontas from McDowell County, W. Va., on the Norfolk & Western Railroad.

Admiralty Coal — Genuine New River Smokeless, Beckley or Sewall seam from Raleigh County, W. Va., C. & O. and Virginian Railroads.

Old Kentucky — Hazard No. 4 and No. 7 steam and domestic coal from Wiscoal, Knott County, Kentucky, on the L. & N. Railroad.

GENCO — Steam and domestic coals from a number of producing districts.

ANTHRACITE — Premium and standard qualities in the entire range of Anthracite burning characteristics.

Capable engineering personnel and the experience gained through long and varied marketing activity assures proper application of one of the above brands and effective servicing of any fuel requirement.

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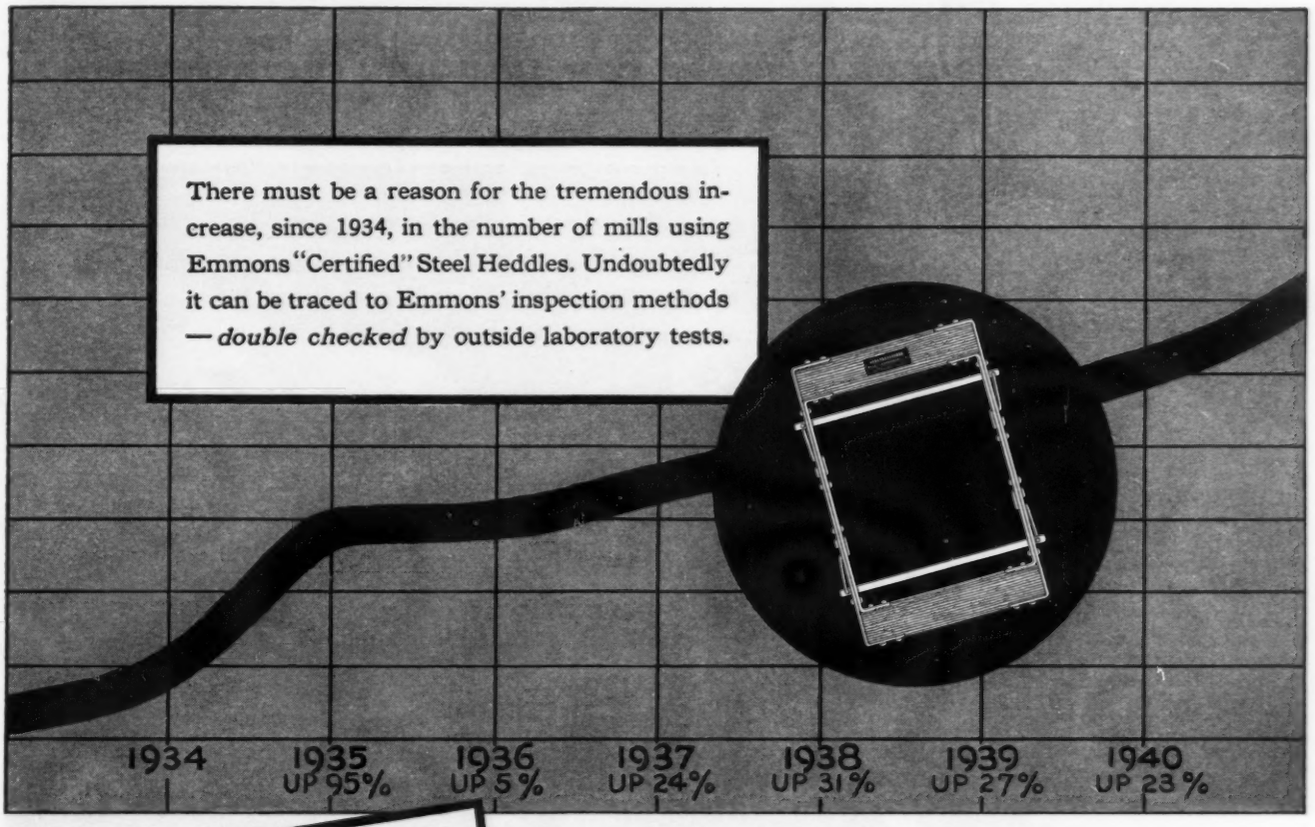
IN EMMONS PRODUCTS

MEANS *MORE SECURITY* FOR YOUR MILL


There must be a reason for the tremendous increase, since 1934, in the number of mills using Emmons "Certified" Steel Heddles. Undoubtedly it can be traced to Emmons' inspection methods — *double checked* by outside laboratory tests.
1934
1935 UP 95%
1936 UP 5%
1937 UP 24%
1938 UP 31%
1939 UP 27%
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Like all Emmons products, Emmons Heddle Frames undergo rigid inspection before being put to work in your mill. Weavers like to work with these frames. Maintenance men appreciate their lasting rigidity, the carefully-smoothed handpicked lumber, and the 2 coats of shellac that keep them in condition. The "Inspected and Approved" seal means Emmons precision workmanship throughout.

WAREHOUSE STOCKS: Emmons products, including standard sizes of flat heddles, are stocked in Charlotte and Atlanta. Emmons "Multiple Yarn Space" Reeds manufactured in Charlotte.

Get the most out of your loom harness equipment by writing — today — for our catalog describing Emmons products.

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Lawrence, Mass.

Please send me your booklet of loom harness equipment.

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"GULF QUALITY LUBRICANTS

help us meet the new spinning room demands"

says this Overseer

Actual photo of a Gulf engineer on a Periodic Consultation Service call — discussing card lubrication with overseer, who has had 55 years of experience in card rooms.

"We Maintain Peak Production by Keeping Our Lubrication Up-To-Date"

"IN spite of the fact that these cards are very old, we keep them running at full capacity with Gulf quality lubricants and advanced application methods," says this overseer of carding. "We secure all the benefits of modern lubrication practice through Gulf Periodic Consultation Service."

If you are seeking a means of improving production in your mill, try modernizing *your* lubrication practice. Call in a Gulf engineer and let him help you — he will recommend the grades of lubricants and the application methods best suited to your particular requirements. You can judge the results, which show up speedily in your cost and production records.

Gulf quality lubricants are quickly available to you through more than 1200 Gulf warehouses in 30 states from Maine to New Mexico. Write or phone your nearest Gulf office today.

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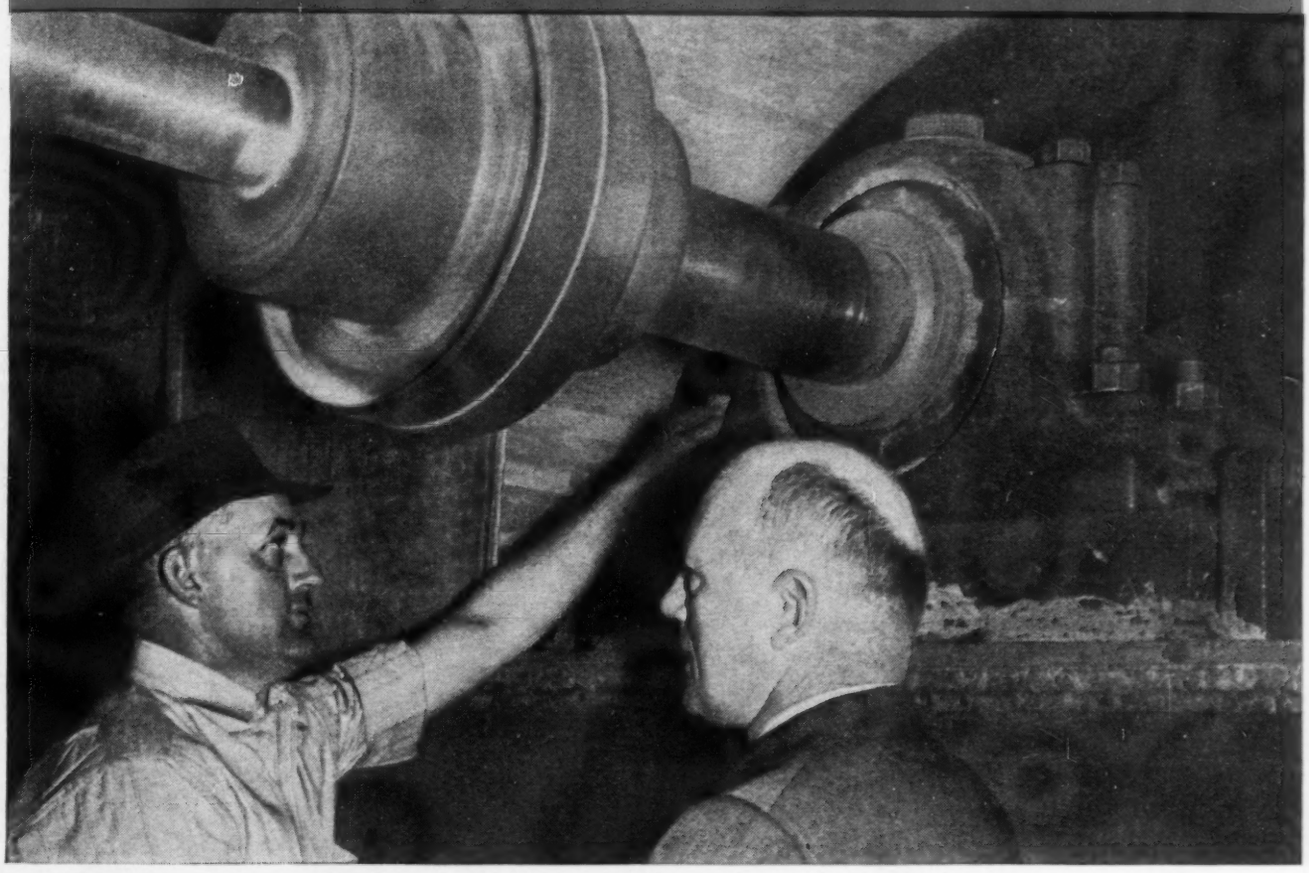

"That is a Big Job *Well Done*" . . . says Mr. Taylor

Very often . . . as in the case of the Carter Mills Company at Lincolnton, North Carolina . . . the problem of stepping up production boils down to "The Right Drive for the Job." In this mill the lineshaft was already overburdened to the point where main drive pulleys could not carry the load, and yet more speed was required to take care of increased production. By modernizing this drive which included new pulleys of correct design and Dodge-Timken Special Duty Pillow Blocks, the problem was solved quickly and economically.

Mr. A. C. Taylor, Master Mechanic of the Mill and Mr. G. H. Woolley, Jr., Dodge Representative, discuss the installation.

Mr. Taylor: This new drive has certainly solved a tough problem for us. We have everything we need now and the whole installation is working like a "top."

Mr. Woolley: Just another case of "The Right Drive for Every Job." Take these husky Dodge-Timken Pillow Blocks for example. They save a lot of power and they will keep right on saving year after year because they are designed for a life expectancy of 30,000 hours under operating conditions for which they are adapted.

Mr. Taylor: They certainly make the job look easy. They require no attention and we will save a substantial amount on lubrication. There is no vibration and noise now either, and that helps a lot.

Mr. Woolley: Your experience is the same as thousands of other operating executives who have learned to know Dodge and depend upon them for "The Right Drive for Every Job."

Dodge Power Transmission Units have enviable performance records. For built-in production machine application — or for power transmission — depend on Dodge.

DODGE MANUFACTURING CORPORATION
MISHAWAKA, INDIANA, U. S. A.

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DODGE
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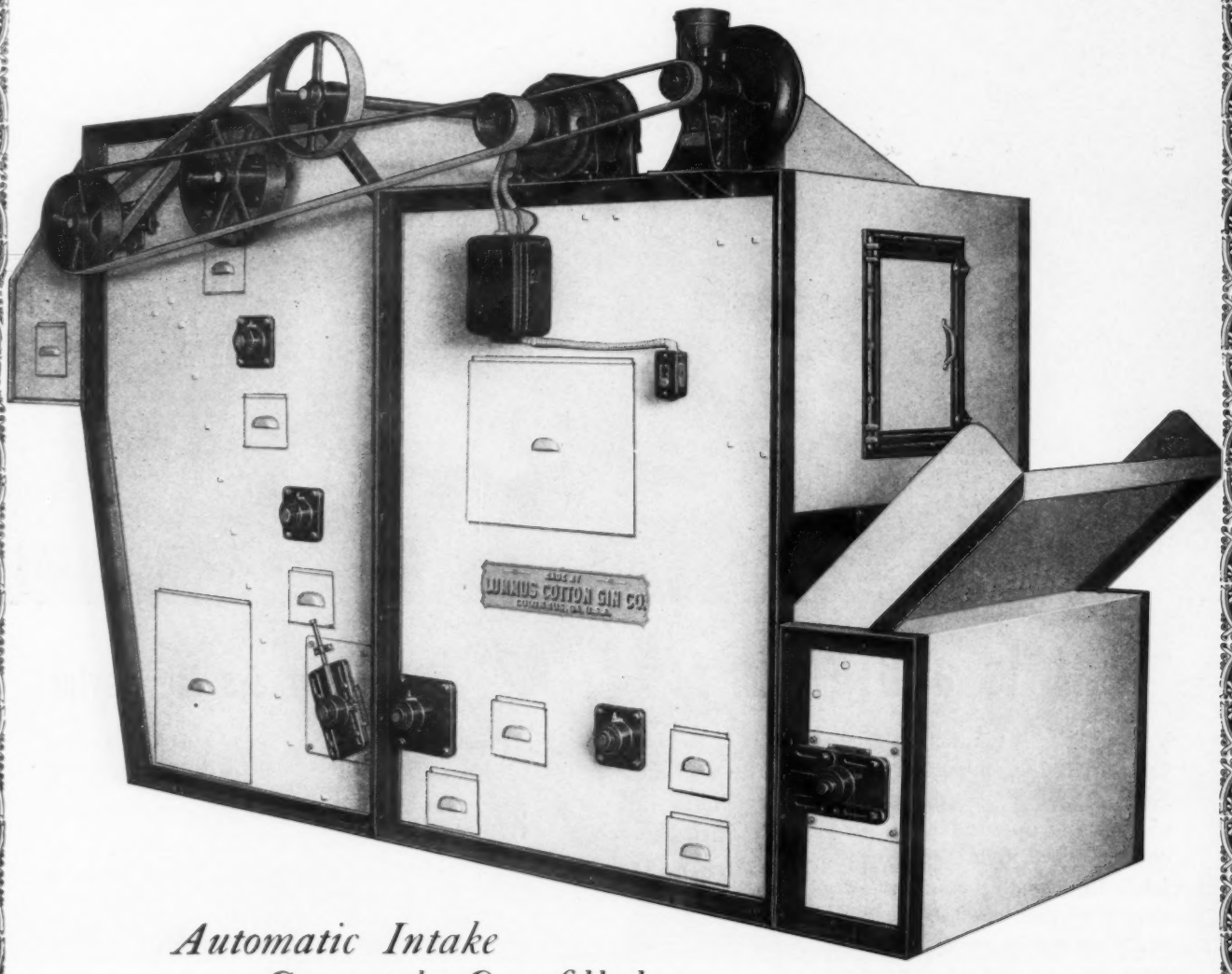
Power Transmission

THE RIGHT DRIVE FOR EVERY JOB

THE LUMMUS BLENDING FEEDER



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The present scarcity of finishing oils made from imported raw materials need not cause serious delays in textile production.

Alert mills are avoiding the possibility of such delays by using NO-ODOROL 1299, an excellent finishing oil made by Cyanamid wholly of domestically produced vegetable oils. Its availability during these critical times is thus assured to all users.

NO-ODOROL 1299 is a highly efficient finishing oil for finishing cotton, rayon and mixed fabrics. It is clear, stable, readily soluble and gives fabrics a soft, full hand. It is extremely resistant to oxidation and will not become rancid or turn yellow on the fabric after long storage.

NO-ODOROL 1299 is offered at moderate prices in comparison with similar finishing oils now on the market. Write now for more complete information.

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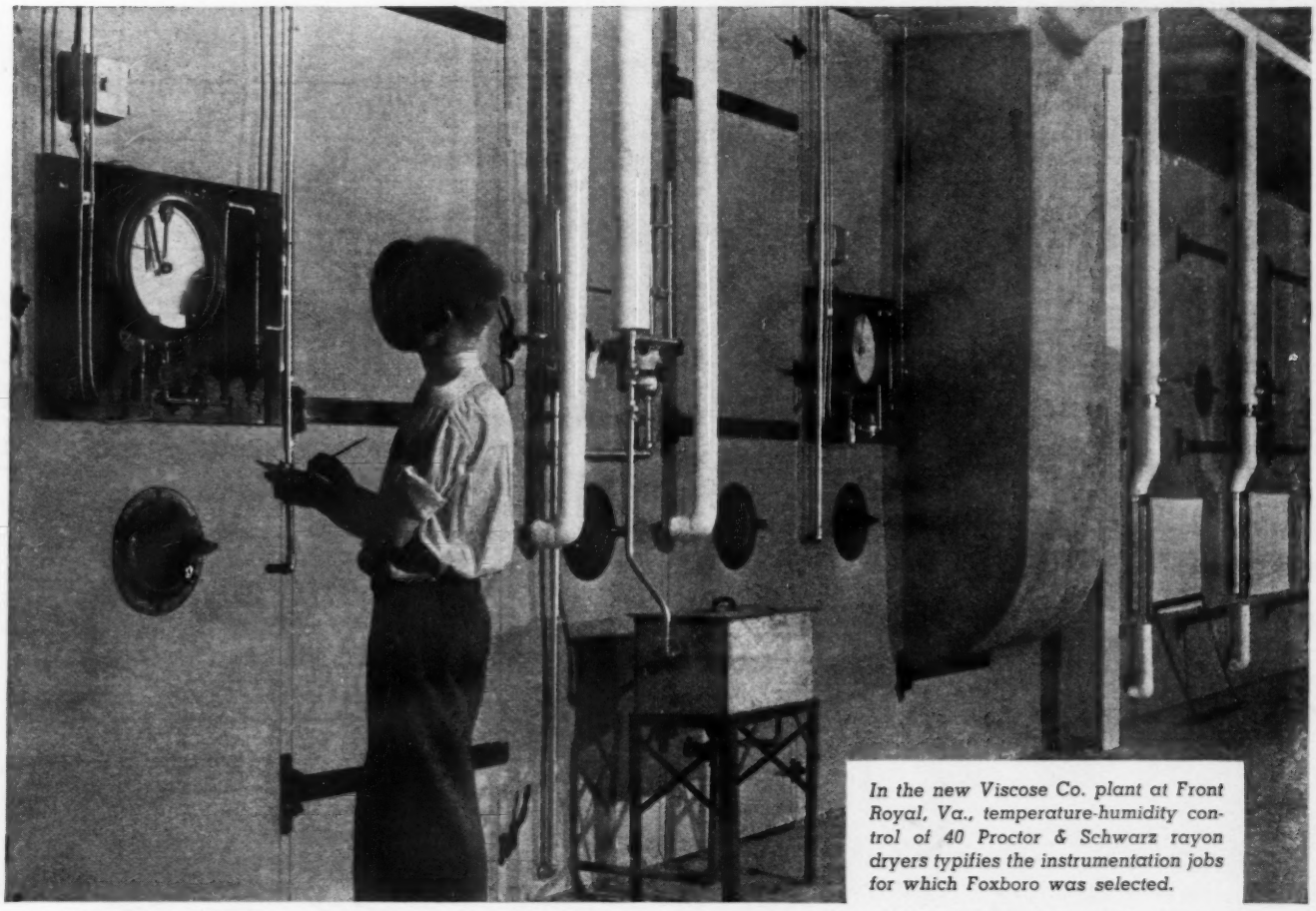

In the new Viscose Co. plant at Front Royal, Va., temperature-humidity control of 40 Proctor & Schwarz rayon dryers typifies the instrumentation jobs for which Foxboro was selected.

We Know YOUR SIDE *of Textile Processes, Too!*

It takes more than instruments alone to supply cost-cutting, quality-boosting measurement and control systems for textile operations. It takes experience, too . . . intimate knowledge of *your* problems, as well as instruments!

Consider dryer control, for example. More than fifteen years ago, Foxboro's pioneering work established the fact that fastest, safest drying can only be accomplished by controlling humidity as well as temperature. This one basic discovery, alone, enabled manufacturers to design improved dryers that *doubled* or *tripled* the speed of drying production!

Foxboro engineers found, too, that the simple, *positive* action of a Foxboro Open-and-Shut Controller is, by far, the best-suited to the characteristics of dryer operation. As a result, Foxboro today has instrumented more than 90% of the dryers under automatic control.

Write for Bulletin 188-3 on dryer instruments, or for information on Foxboro Instrumentation for any other textile operation. **The Foxboro Co., 18 Neponset Avenue, Foxboro, Mass., U. S. A.** Branches in principal cities of U. S. and Canada.

RAYON PROCESS INSTRUMENTATION

was pioneered by Foxboro. Efficient present-day operation of dryers is but one of many rayon-making steps now based on Foxboro's original Application Engineering. From the raw chemicals to the packaged goods, Foxboro means controlled quality and costs.

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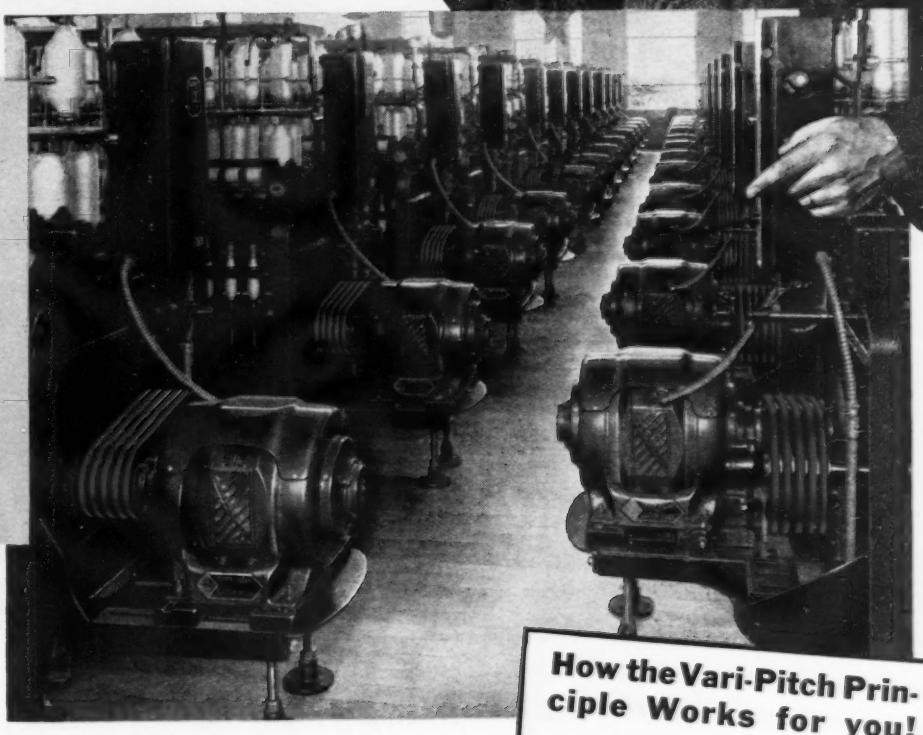
Creative Instrumentation

Not *ONE* Speed...but *Any Speed!*

Here's a Drive that Lets You Use One-Speed Motors and Yet Get ANY Speed Within the Practical Ranges You Need for Textile Mill Use! It's the Sensational New Allis-Chalmers Vari-Pitch Texrope Drive!



HOW TO GET variable speeds without paying *extra* — that's the problem facing textile men today!

But it's a problem you can solve — effectively and economically — with the Allis-Chalmers Vari-Pitch Texrope Drive!

This is good news to textile men. For it means that low-cost one-speed motors can be used. And it means that *without paying an extra premium,* you can run your textile machinery at exactly the speed that will give them maximum efficiency.

Find out how easy it is to install these new variable speed drives . . . how effectively they operate to give you increased production . . . how there are no production d e l a y s when speed changes are made!

You can get this story by calling the engineer in the district office near you. Or write to Allis - Chalmers, Milwaukee, Wisconsin.

A-1391

How the Vari-Pitch Principle Works for you!

Adjusted for maximum diameter—high speed.

Adjusted for minimum diameter—low speed.

To get the speed you want, use Allis-Chalmers Vari-Pitch Drives — in capacities from fractional to 150-hp . . . with speed variations of 15 to 25% per sheave! In the stationary control type, speed changes are made by stopping motor and making a simple adjustment of the pitch diameter of the sheaves. In the motion control type, pitch diameters are adjusted while sheave is in motion.

Vari-Pitch Speed Changers • Texrope V-Belts • Duro-Brace Texsteel Sheaves • Vari-Pitch Sheaves • Standard Cast Iron Sheaves • Adjustable Pitch Diameter Texsteel Sheaves • 2-3-4 Combination Sheaves • Paraline Automatic Motor Bases • Oil Field Drilling Rigs.

Belts by B. F. Goodrich

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Are you profiting from the

"Double Feature"

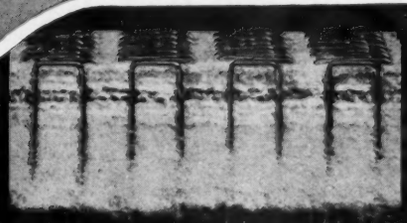
TUFFERIZED

U. S. PAT. NO. 2,174,172

CARD CLOTHING

Pays! in long, trouble free, high quality carding. **Saves!** in grinding costs. The secret is in the combination of the two patented Tuffer features. Study them carefully and you will know why boss carders say—"now we get better carding at lower cost."

Inspect your card clothing now! Is it worn? Need replacement? Call in your Howard Bros. representative. He will appreciate your business and show it by quick, careful service.



"TUFFERIZING" PROCESS

An exclusive Howard Bros. patented-precision-process, makes every wire staple seat squarely, flat, and firmly into the famous, TUFFER foundation. All wires are even in length, spaced uniformly and perfectly parallel at all times. Each staple cut clean, sharp, smooth and free from wire burrs. Uniformity impossible to get any other way.

TUFFER (PATENTED) FOUNDATION

is made of carefully selected and specially constructed cloths for our own particular use. Tested to be several times necessary strength, TUFFER foundation is "cushioned" just right to make the wire shock-proof to the constant hammering of the various stocks carded.

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Southern Plants: Atlanta, Ga., Gastonia, N. C. **Branch Offices:** Philadelphia, Dallas

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PRODUCTS: *Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards • Napper Clothing, Brush Clothing, Strickles, Emery Fillets. Top Flats Recovered and extra sets loaned at all plants • Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant • Midgley Patented, and Howard's Special Hand Stripping Cards • Inserted-Eye and Regular Wire Heddles.*

New Nopco "99" Soaps

UP TO 10% LESS MOISTURE CONTENT

Save Up to 10% on Your Soap Costs

Here's a sure way to save money? Follow the lead of a number of leading mills—try the new Nopco "99" Soaps without delay. These unique soaps are exclusive with Nopco and contain as low as 1% moisture. Although they save up to 10%, they cost no more per pound than old-type soaps.

Furthermore, Nopco "99" Soaps are unusually low in free alkali content. This is not a built-up soap. When desired, you can buy alkali separately, at a much lower cost than soap itself. Then add as much or as little as you desire.

Handling? Even easier than ordinary soaps. Having more concentrated soap value, they "bulk" less—are easier to handle—fill less storage space. What's more, they "pick up" no moisture from the air during storage — you use same amounts at widely spaced intervals . . . get identical results.

Quality? None better, as you will see at the very first trial. Savings have been made possible solely through basic economies in manufacture, storage and shipping charges, *not* by use of cheap raw materials.

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Get acquainted with Nopco "99" Soaps now. The savings will show up in your cost sheets quickly. Write for complete information and data . . . or, better still, order enough for a trial run.

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125 lb. S. P.

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GIVE YOU MORE FOR YOUR VALVE BUYING DOLLAR

Don't take our word for it but examine carefully every part of Fig. 2125 and Fig. 2129 and see for yourself the many points of superiority.

From handwheel to pipe threads you will find at least a dozen points of convincing evidence that Lunkenheimer 125 lb. S.P. Bronze Gate Valves first give you more for your valve *buying* dollar and then save you more on your valve *maintenance* dollar.

Such features as unusually heavy body and bonnet construction, more powerful and accurately machined stem threads, exceptionally sturdy bonnet collar, extra deep stuffing boxes . . . all combine to guard against failure.

Judge for yourself whether these features mean substantially greater values. You owe it to the profit side of your ledger to investigate.

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Fig. 2129
Single Wedge Disc
Non-Rising Stem

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Double Wedge Disc
Rising Stem

Send for copy of Catalog No. 78. We will include our handy "Guide," for easy selection of valves, boiler mountings and lubricating devices.

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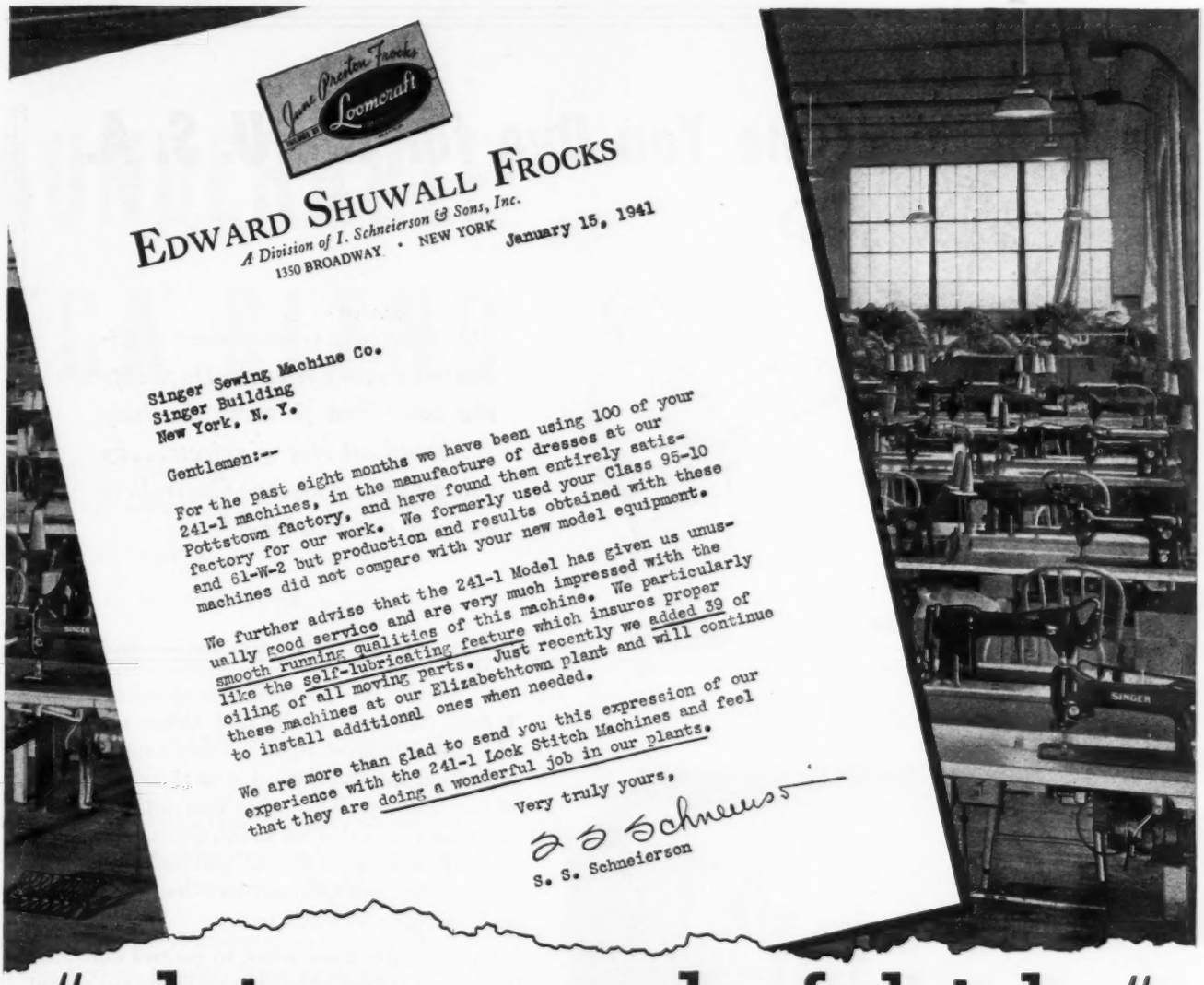
Jane Preston Frocks
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EDWARD SHUWALL FROCKS
A Division of I. Schneierson & Sons, Inc.
1350 BROADWAY · NEW YORK
January 15, 1941
Singer Sewing Machine Co.
Singer Building
New York, N. Y.
Gentlemen:--
For the past eight months we have been using 100 of your 241-1 machines, in the manufacture of dresses at our Pottstown factory, and have found them entirely satisfactory for our work. We formerly used your Class 95-10 and 61-W-2 but production and results obtained with these machines did not compare with your new model equipment.
We further advise that the 241-1 Model has given us unusually good service and are very much impressed with the smooth running qualities of this machine. We particularly like the self-lubricating feature which insures proper oiling of all moving parts. Just recently we added 39 of these machines at our Elizabethtown plant and will continue to install additional ones when needed.
We are more than glad to send you this expression of our experience with the 241-1 Lock Stitch Machines and feel that they are doing a wonderful job in our plants.
Very truly yours,
S. S. Schneierson
SINGER

"..doing a wonderful job.."

AND AN ORDER FOR 39 MORE SINGER 241 MACHINES REAFFIRMS THIS OPINION

The above letter is but one of many received from manufacturers using the new high speed Singer class 241 machines. You, too, will find this outstanding machine an important factor in stepping up production and lowering costs in your plant.

Let us arrange a test of the Singer 241 in your own plant on your own work. Compare it job for job with any machine of its type and you will be convinced of its superiority. Contact the nearest branch of the Singer Manufacturing Trade Department and a test will be arranged without cost or obligation.

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149 Broadway, New York, N. Y.
Branches in all principal cities

SINGER SEWING MACHINE CO.
149 Broadway, New York, N. Y.

Please send me a copy of the illustrated folder describing the Singer Class 241.

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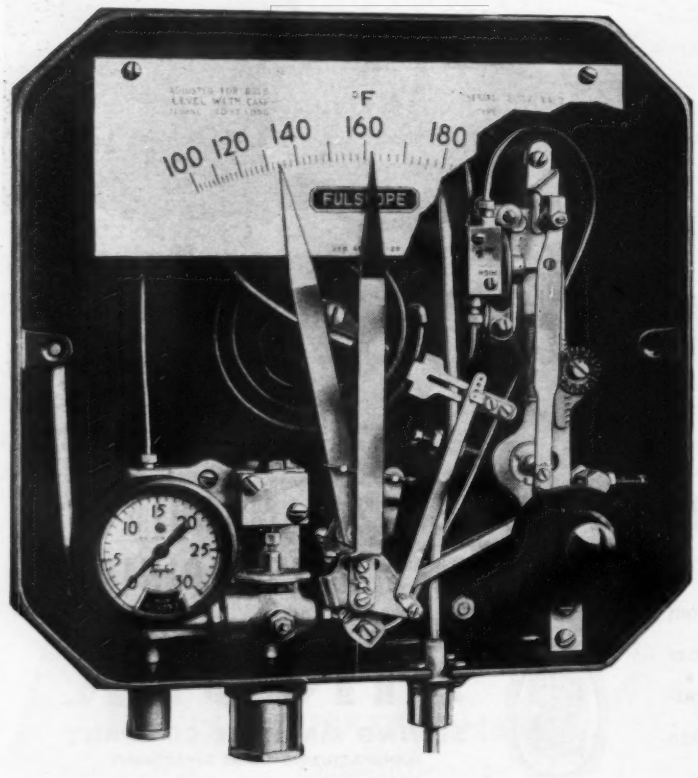
Next Time You Dye for the U. S. A.

Dye exactly to Government specifications every time... Duplicate the color and fastness precisely ...Avoid all risk of rejects... by using Taylor Fulscope Controllers on your dye machines!



Interior . . . Indicating Type Taylor Fulscope Controller. Makes it easy to dye right

YOU CAN'T SELL the QM Office something that's "almost right." There's no "nearly" in Federal specifications. Up to standard means *all* the way up. When the Man with Whiskers says that your vat-dyed khaki, for example, must be "such-and-such a shade," and "color-fast thus-and-so," he's not talking—he's demanding. Better be sure, or he won't buy.

So it's plain horse sense to control *absolutely* the biggest potential trouble-maker in your plant —fluctuating temperatures. Human manipulation or watchfulness can't do it. Taylor Fulscope Controllers automatically will.

Taylor Fulscope Controllers guard and govern —with utmost accuracy—temperatures on jig vats, continuous dye machines, package dye machines, and in raw stock dyeing, skein and piece dyeing in woolens and worsteds. Taylor Fulscopes automatically help prevent such difficulties as streakiness, color spots, and other faults that earn turn-downs from Uncle Sam.

Fit all your dye machines with Taylor Fulscope Controllers and keep on getting Government business. Find out about Fulscopes by writing Taylor Instrument Companies, Rochester, N.Y., or Toronto, Canada.

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Indicating Recording • Controlling
TEMPERATURE, PRESSURE, FLOW *and* LEVEL INSTRUMENTS

A "first" for the Girl Scouts

LAUNDERABLE TECA* BLEND

FIRST spun rayon fabric to be approved by the American Institute of Laundering. First spun rayon to be adopted for a Girl Scout Leaders' uniform. First to measure up to the Girl Scouts' exacting standards of wearability and cleanability . . . here are the reasons why:

SHRINKAGE CONTROL. Teca, Eastman crimped acetate rayon, is a fiber which undergoes little or no change when wet . . . helps hold the fabric shape.

CRUSH-RESISTANCE. A unique characteristic of Teca is its crimp which provides lively spring-back after the fabric has been subjected to pressure or tension.

TAILORING QUALITIES. Teca Blends have a firm, sturdy texture . . . present no problems on the cutting tables and machines. At the same time, they are pleasantly soft and smooth to the skin.

LAUNDRY ACCEPTANCE. Garments in Launderable Teca Blends, made to approved specifications, are entitled to the woven label of the American Institute of Laundering, assuring acceptance by any of the 2,200 laundries comprising the Institute membership.

* Eastman

CRIMPED ACETATE RAYON

For further information about Launderable Teca Blends, consult A. M. Tenney Associates Inc., 10 E. 40th Street, New York, sales representatives for Tennessee Eastman Corporation, subsidiary of Eastman Kodak Company.

We Cater To Your Individualism . . .

We know that textile mills achieve distinction for their products by processing them according to exclusive techniques built around individual formulas. You probably use several of these private formulas in your own mill.

That's why Armour's soap technicians have produced under careful laboratory control several soaps with different characteristics for essentially the same particular processes. So that you can use the exact soap that fits your formula.

If you scour cotton, full heavy wool or perform similar operations, these two high titer tallow soaps will achieve excellent results for you—consistently—at a real saving.

FLINT CHIPS AND POWDER

Tallow base. Titer 41-42 C.

INDUSTRIAL CHIPS AND POWDER

Tallow base. Titer 39-40 C.

These two tallow soaps are prepared from the highest quality raw materials under constant laboratory check control. You can't buy better soaps.

Make it a point to phone, wire, or write your nearest Armour and Company representative today for the complete story on Flint and Industrial. He'll gladly tell you how you can reduce your soap costs and raise your production quality with these two tallow soaps. That's worth looking into!

Ask about Armour's CERTIFIED SOAP, OLIVE SOAP, and TEXSCOUR FLAKES for your light duty work; PALM SOAP for your heavy duty work.

Remember—for your individualism—a specific ARMOUR soap!

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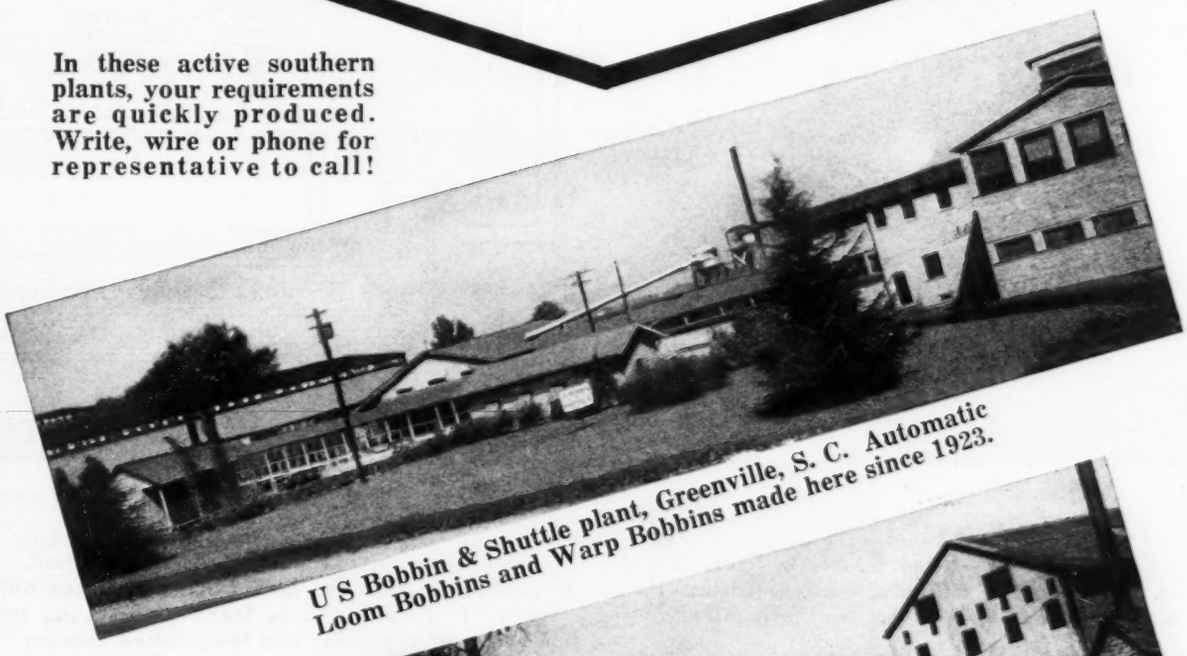
For Fast Service in

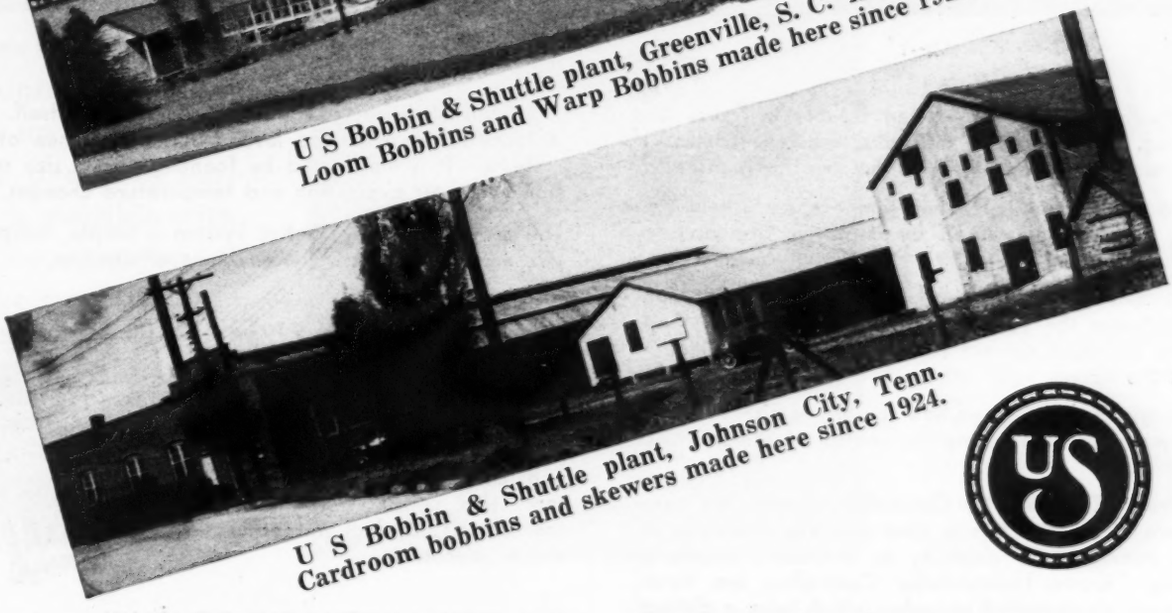
BOBBINS & SHUTTLES

Contact these Southern Plants

In these active southern plants, your requirements are quickly produced. Write, wire or phone for representative to call!



U S Bobbin & Shuttle plant, Greenville, S. C. Automatic Loom Bobbins and Warp Bobbins made here since 1923.



U S Bobbin & Shuttle plant, Johnson City, Tenn. Cardroom bobbins and skewers made here since 1924.

U S BOBBIN & SHUTTLE CO.

M. Ousley: GREENVILLE, S. C.

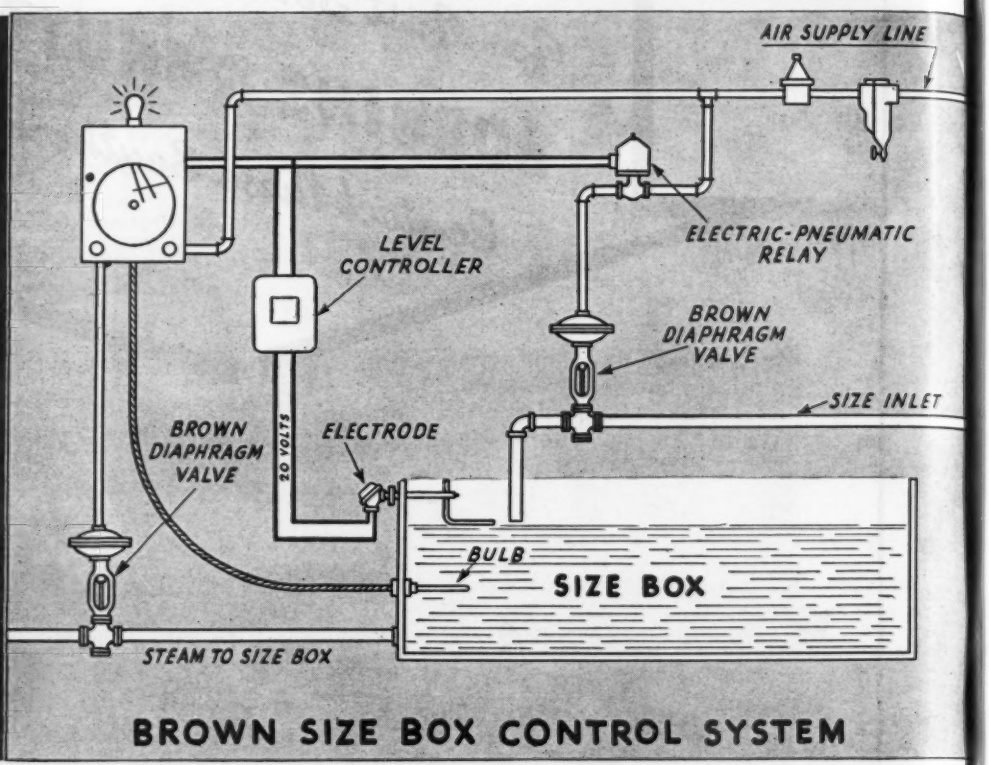
A. D. Roper: JOHNSON CITY, TENN.

E. R. Holt: CHARLOTTE, N. C.

D. C. Ragan: HIGH POINT, N. C.

BETTER BOBBINS • SPOOLS • CONES • SHUTTLES

A Practical Way to End SIZE BOX TROUBLES



BROWN SIZE BOX CONTROL SYSTEM

Improperly sized beams—mean trouble in looms and finishing. To avoid this difficulty, accurate control of both temperature and level of the size box is essential.

Proven results show that when temperature is held constant, the troubles caused by improper size viscosity are eliminated.

By maintaining size box level at the "right level", contact between the yarn and size solution can be standardized to insure correct saturation and uniform coating of the fibres.

The diagram above shows how the Brown Size Box Control System provides complete control of temperatures and levels.

The Brown Thermometer Controller governs the temperature of the size box to give yarn the necessary internal strength and elasticity to overcome strains in weaving. Brown Thermometer Controllers are throttling type, air-operated recorders which have a distinct advantage over on-off controllers in that they "graduate" the flow of steam to suit the requirement.

The Brown Liquid Level Controller maintains the size level at the "right level" to give the yarn compactness and smoothness to lay or bind the fibres in order to reduce frictional resistance in weaving. It operates from the electrical conductivity of the size itself. It detects variation in size level much faster than other systems. It is unaffected by foaming of the size solution or by air circulation and temperature changes.

The Brown Size Box Control System is simple, inexpensive and easy to install on any type of size box.

Send for Catalog No. 9304

This catalog fully describes the complete line of Brown Instruments and Minneapolis-Honeywell Controls for measuring and controlling moisture content, size cooking, bleaching, mercerizing, dyeing and other textile processes.

THE BROWN INSTRUMENT COMPANY, *a division of Minneapolis - Honeywell Regulator Co.,* 4492 Wayne Avenue, Philadelphia, Pa. Offices in all principal cities. Toronto, Canada: 117 Peter Street—Amsterdam-C, Holland: Wijdesteeg 4 — England: Wadsworth Road, Perivale, Greenford, Middlesex—Stockholm, 16, Sweden: Nybrokajen 7.

BROWN THERMOMETER CONTROLLERS
and
MINNEAPOLIS-HONEYWELL CONTROL SYSTEMS

To Measure and Control is to Economize

THE CHEETAH IS THE FASTEST ANIMAL ON EARTH . . .

It is a hunting leopard that has been clocked in test races at 70 miles an hour for 100 yards.

THE WILLCOX AND GIBBS "SUPERLOCK" IS THE FASTEST OVERSEAMING MACHINE IN THE WORLD

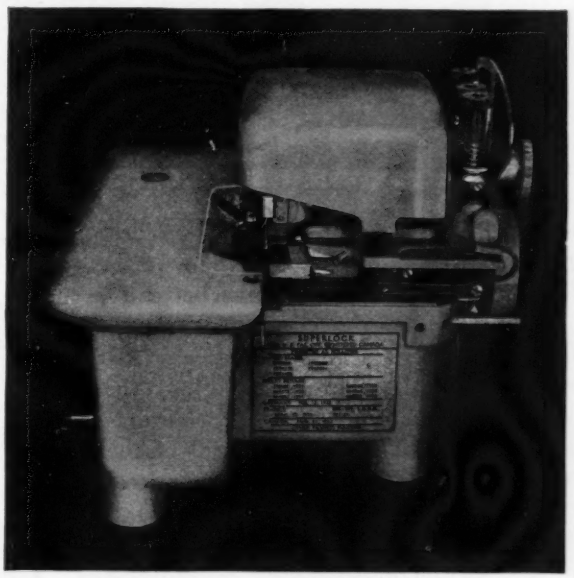
Reg. U. S. Pat. Off.

Like the Cheetah, the "Superlock" develops its great speed through smooth design, silent and perfectly balanced motion, which makes possible instantaneous acceleration with virtual absence of vibration even at maximum speed.

Continuous operation up to 6000 R. P. M. over long periods is possible without causing fatigue to the operator.

The "Superlock" represents the most advanced development of the sewing machine industry in recent years. It is superior for overseaming and edging work on a wide variety of fabrics.

Whether overseaming, overedging, hemming or serging, the "Superlock" establishes new standards of efficiency and lowered costs while maintaining the highest quality of production.



There is a "Superlock" machine best fitted to your particular requirements. Let us demonstrate its possibilities on your own work in your own plant. No obligation.

Genuine Willcox and Gibbs and Metropolitan parts and needles may be purchased only from Company offices and authorized agents.

Send for illustrated descriptive Bulletin No. 828

WILLCOX & GIBBS SEWING MACHINE CO.

214 West 39th Street • New York, N. Y.

ARE YOU PREPARED TO MEET A LINEN SHORTAGE?

Get facts today on linen-like textures in Crown* Tested Spun Rayon Fabrics

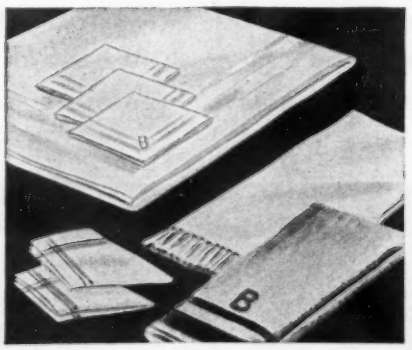
• • •

Regardless of what's going on in the rest of the world, American women are going to keep right on buying towels. And *tablecloths, napkins, handkerchiefs, scarfs.*

But what about the reduction of linen imports? How are you going to meet the demands for the so-called "linens and domestics"?

Fortunately, this is one problem you won't have to worry about. We've been working on it for years, and we're glad to announce that no linen shortage, no matter how complete or how long, can rob you of your markets.

Crown Tested Spun Rayon Fabrics are the answer. Greige mills have proved that it is both possible and practical to produce durable, linen-like textures in spun rayon fabrics. Dyers and finishers have found that these fabrics possess even better dyeing properties—that they result in brighter, clearer shades which are generally more satisfactory than heretofore possible. And consumers, from the millions of yards of these fabrics which have gone into dresses and sports apparel, have learned that they can be trusted to give complete satisfaction.



To help you work out the fabric effects you desire, we have accumulated much valuable data on linen-like textures in Crown Tested Spun Rayon Fabrics. Let us assist you in applying this versatile fiber to meet your requirements.

Facts about the linen-like textures in Crown Tested Spun Rayon Fabrics

1. ***Highly absorbent.*** Handkerchiefs recently tested 36% more absorbent than linen.
2. ***Washable.*** Tablecloth showed no sign of wear after three months' commercial launderings.
3. ***Fast colors.*** The spun rayon fabrics are not subject to crocking.
4. ***Serviceable.*** Proved by millions of yards of these fabrics which have gone into dresses and sports apparel.
5. ***Permanent whiteness.*** These fabrics stay really white. No tendency to yellow with age.
6. ***Lint-free.*** Suitable for cleaning eye-glasses, the best test of lint freedom.

*Reg. U. S. Pat. Off. Copr. 1941—American Viscose Corp.

Lustre Fibres, Ltd., 350 Fifth Ave., New York, Selling Agents for

AMERICAN VISCOSE CORPORATION

World's Largest Producer of Rayon Yarn

CROWN TESTED AND APPROVED RAYON FABRIC

Sales Offices: New York, N. Y.; Charlotte, N. C.; Providence, R. I.; Philadelphia, Pa.

• • •

Plants at: Marcus Hook, Pa.; Roanoke, Va.; Lewistown, Pa.; Parkersburg, W. Va.; Nitro, W. Va.; Meadville, Pa.; Front Royal, Va.

SWING INTO SUMMER...The Easy Way...with Daycos

Everywhere, textile mill men are preparing *now* to swing into summer—the easy way—with Dayco Tempered Roll Coverings. Textile mill men know that year-round Daycos are unaffected by summer heat. They know that Daycos' unvarying properties reduce "down time," decrease maintenance cost and step up efficiency.

This summer, more than ever before, you'll want maximum production of high standard, uniform yarn at lower-cost-per-month-of-use. You'll get it, too, with Daycos, because they won't flatten, distort or groove. Daycos reduce ends down and lapping up to the very minimum. In short, Daycos have been tested and proved by the nation's leading textile mills to be the *one* standard of efficiency by which all others must be judged.

THE DAYTON RUBBER MFG. CO.
TEXTILE PRODUCTS DIVISION, Dayton, Ohio
The Originators and Pioneers of Dayco Tempered Roll Coverings

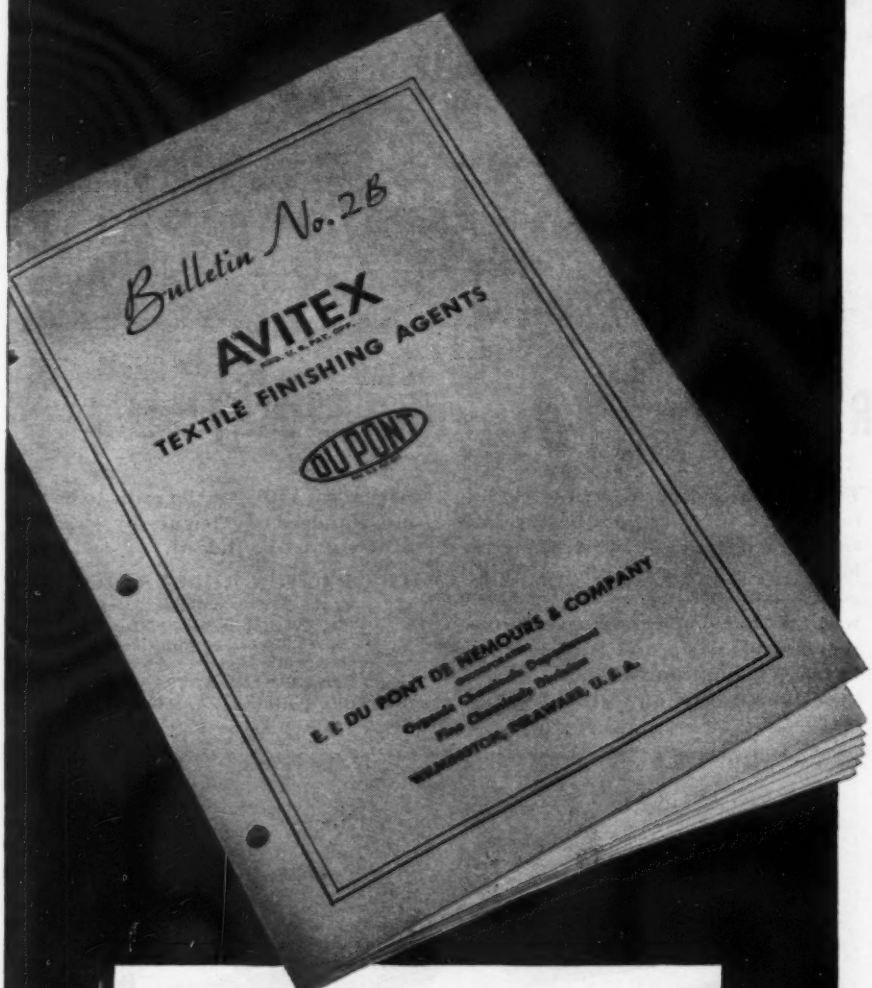
GREENVILLE SALES OFFICE
Woodside Building . . . Greenville, S. C.

HERE'S WHY—
DAYCO TEMPERED ROLL COVERINGS ARE THE No. 1 CHOICE OF AMERICA'S TOP-FLIGHT TEXTILE MILLS

1. Improved drafting.
2. No grooving—less ends down.
3. Unaffected by temperature changes.
4. Lower net roll costs.
5. Long service life.
6. Easy to apply.
7. Proper cushioning.
8. Not affected by hard ends.
9. Static free.
10. Oil resisting.
11. One piece tubular construction.
12. Produce more uniform yarn.

Dayton
Thorobred TEXTILE PRODUCTS
Dayco TEMPERED ROLL COVERINGS-LOOM SUPPLIES
MADE BY THE WORLD'S LARGEST MANUFACTURER OF V-BELTS
COPYRIGHT 1941, THE DAYTON RUBBER MFG. CO.

HAVE YOU SEEN THE DU PONT CONDENSED TREATISE ON TEXTILE FINISHING AGENTS?



WRITE FOR BULLETIN 2B

▶ *The varied uses of AVITEX products in textile finishing are described. Data for practical working conditions are given and the results of extensive research outlined for quick reference.*

THE fatty alcohol sulfates, when introduced, established a new standard of quality in textile finishing. New developments, with special characteristics and working properties, now broaden the usefulness of the earlier types. These new products have all met with enthusiastic reception. They have given the finisher a tool for producing superior finishes that can be recognized readily by the converting trade and the consuming public.

Important advantages of the AVITEX products are: (1) The improved whiteness of whites and clarity of colors. (2) Freedom from storage rancidity and "yellowing," characteristic of older types of finishes. (3) The economy with which they can be used.

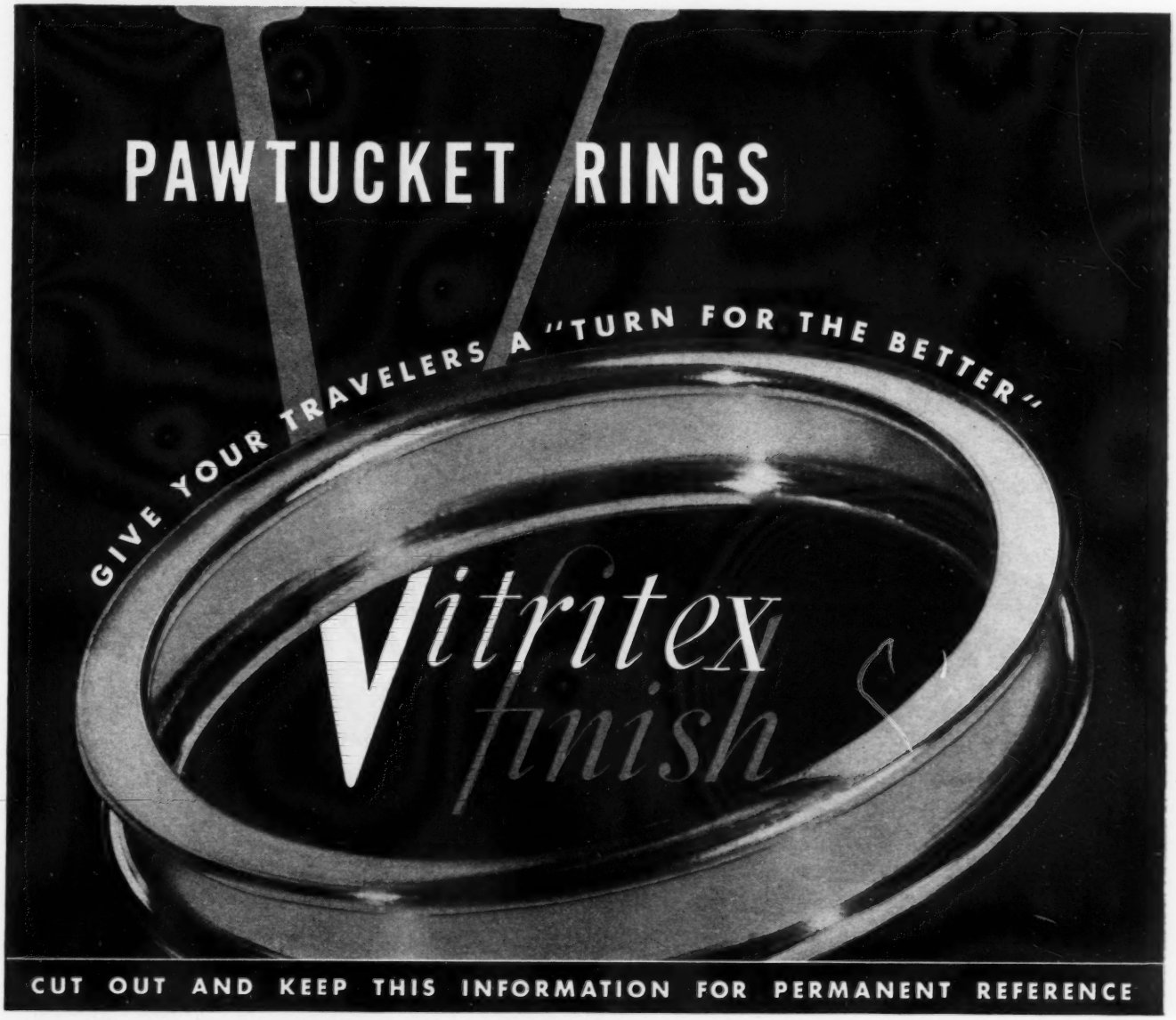
AVITEX products are stable to oxidation and resistant to decomposition on heating. They do not develop yellow discoloration in hot processing. This last property is especially important in view of the high temperature drying and preshrinking operations now used.

DUPONT
REG. U.S. PAT. OFF.

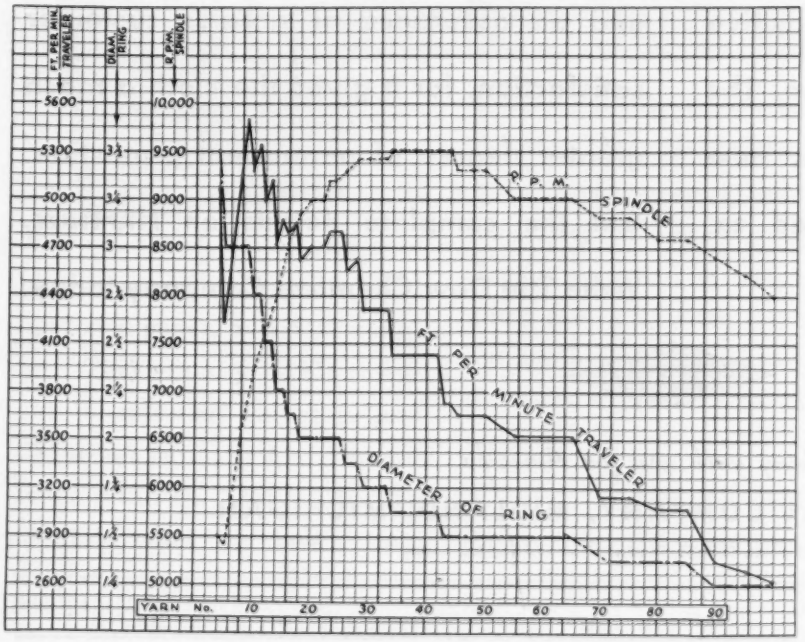
AVITEX
REG. U.S. PAT. OFF.

TEXTILE FINISHING AGENTS

E. I. DU PONT DE NEMOURS & CO. (INC.), FINE CHEMICALS DIVISION, WILMINGTON, DELAWARE


PAWTUCKET RINGS
GIVE YOUR TRAVELERS A "TURN FOR THE BETTER"
Vitritex finish
CUT OUT AND KEEP THIS INFORMATION FOR PERMANENT REFERENCE

This is number 6 of a series. Here you will find practical information of interest to users of rings



A Graphical Study of Relationship between TRAVELER SPEED, DIAMETER OF RING, and SPINDLE SPEED

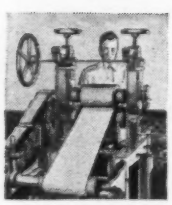
In order to use this chart to arrive at the recommended speed of the traveler for any number of yarn, the first step will be to locate the yarn number on the horizontal line as indicated. Then, by following the ordinate or vertical line over this number of yarn, one can successfully pick out the ring diameter, traveler speed, and corresponding spindle speed.

For example, assume that we are investigating the specifications for fitting up a frame to spin number 52's yarn. After the No. 52 has been located, and following the vertical line, it is found that a 1½" ring should be used, giving a traveler speed of 3650 feet per minute, and a spindle speed of 9300 R.P.M.

PAWTUCKET SPINNING RING CO.
(Subsidiary of Saco-Lowell Shops)
Central Falls, Rhode Island

NAPENIZE

The Positive Anti-Mildew Treatment



EASY TO APPLY

In NAPENIZING canvas products, processors get positive anti-mildew protection. The effectiveness of this new treatment remains after continued exposure to the elements.

NAPENIZE is an easy treatment to apply and an assurance of greater customer satisfaction, for it gives the cloth a much greater degree of permanent protection. Get the complete details on NAPENIZE. Write The Dow Chemical Company today.

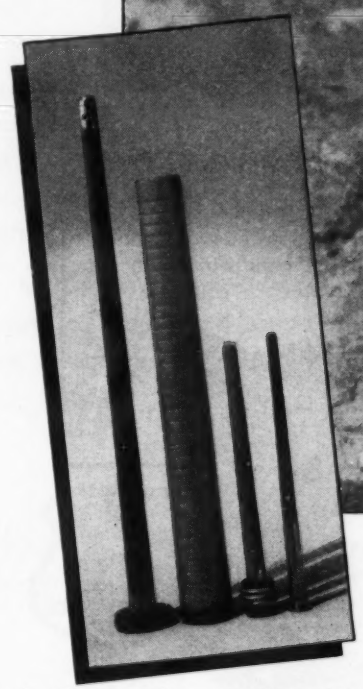
DOW

Working with you for America

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

New York City, St. Louis, Chicago, San Francisco, Los Angeles, Seattle

Photo by Ewing Galloway, N. Y.



A. P. T. tubes, quills, and bobbins, made of impregnated and hardened paper, will NOT splinter. They are also highly resistant to splitting, chipping, and distortion (even in high, humid temperatures). Since they're "built around the hole", they always run true on the spindle, reducing vibration and resultant wear on themselves and bearings. They have great resiliency. Even if distorted by rough handling, they will often straighten out again when put on the spindle. Ask us about other advantages.

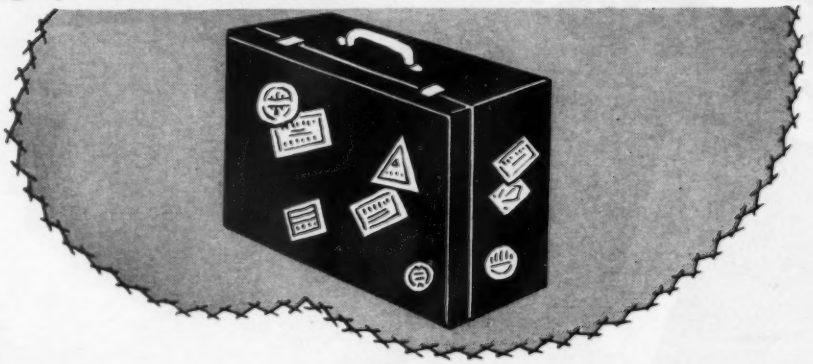
A. P. T. products are used for the spinning, twisting, or weaving of cotton, wool, silk, or rayon.

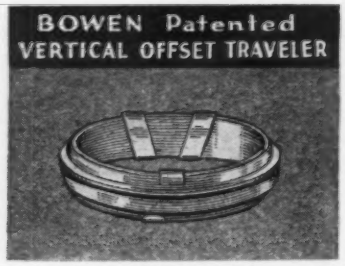
AMERICAN PAPER TUBE CO.
WOONSOCKET, RHODE ISLAND

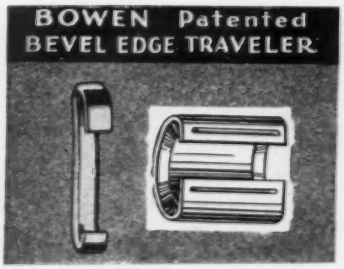
A·P·T·
TUBES · QUILLS
AND BOBBINS

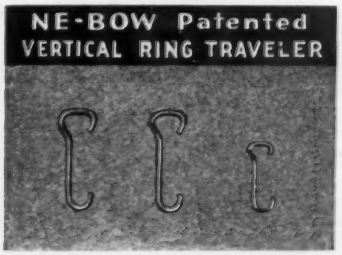
SALES REPRESENTATIVES: M. Bradford Hodges, 161 Spring St., N. W., Atlanta, Ga.; Earl D. Melot, 322 N. 15th St., Allentown, Pa.; W. J. Westaway Co., Ltd., Hamilton, Ontario, and 455 Craig West, Montreal, Quebec.

SEASONED TRAVELERS









The **BOWEN PATENTED VERTICAL OFFSET TRAVELER** has proven its worth in the twisting of cord and plys where uniformity of twist elongation and increased breaking strength are important factors. This design prevents a gripping or binding effect, giving an even tension, an evener rounded product and longer life to the traveler.

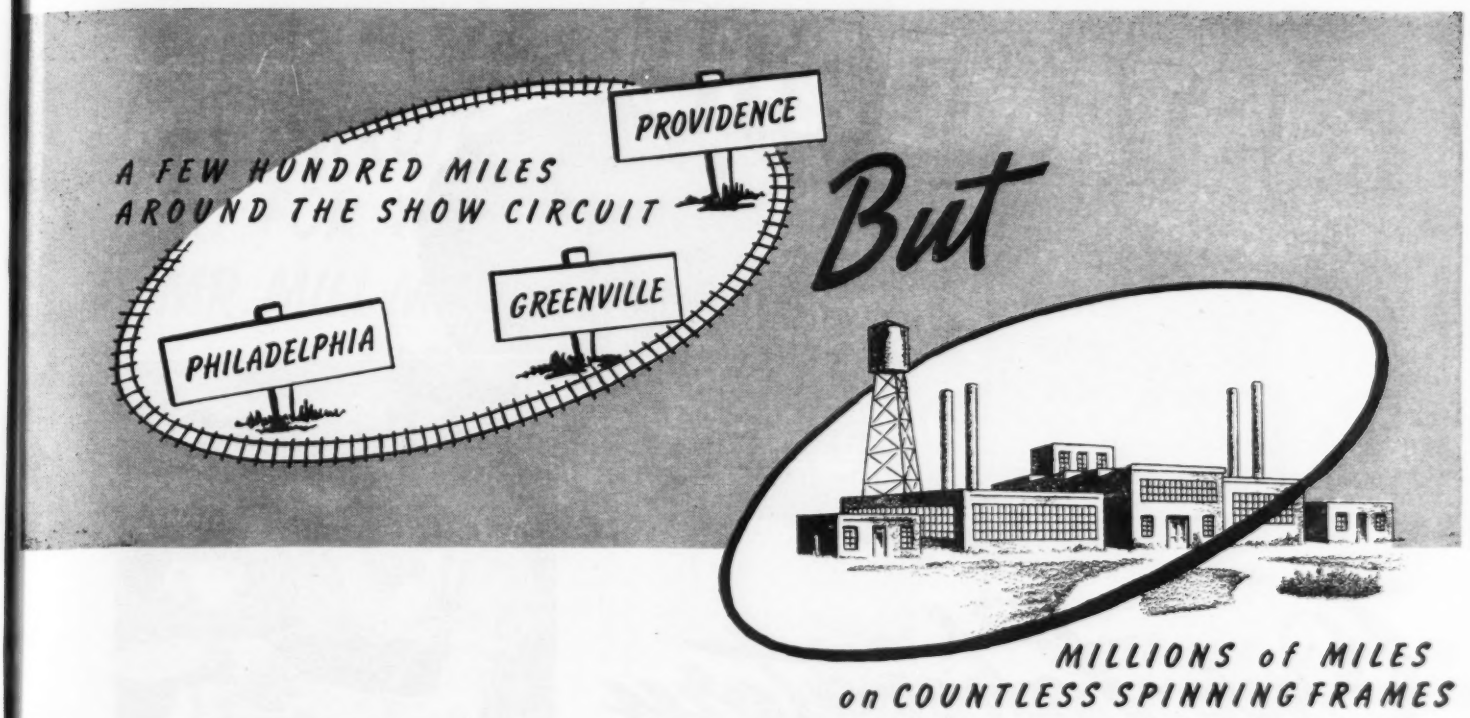
The **BOWEN PATENTED BEVEL EDGE** enables the swirling of the end, in passing through the traveler, to produce ideally smooth even yarn. There are no angular edges to flatten the end, which is not true of the ordinary type of ring travelers. This feature eliminates split ends in the throwing of rayons and silks, and does away with fly waste in the spinning and twisting of cotton, wool, worsteds, asbestos and kindred fibres.

The **NE-BOW PATENTED VERTICAL RING TRAVELERS** have been developed to meet the particular needs of the silk and rayon trade in the process of throwing, due to the adoption of the vertical ring, particularly of the lubricating type. When a traveler of this type is at rest, it will lock on the outer upper surface of the ring, preventing the unthreading of the end, due to excessive twist as required in silk and rayon yarns. The creeping of the traveler by the twist imparted in the end is retarded, preventing the kinks which are so detrimental in the promotion of quality products.

Sealed metal containers guarantee that your U. S. Travelers will reach you in perfect condition, with no tampering or loss in count.

UNIVERSAL RING

BOWEN ROUND POINT TRAVELERS
BOWEN SQUARE POINT TRAVELERS
BOWEN IMPROVED VERTICAL BRONZE
BOWEN PATENTED BEVEL EDGE
BOWEN PATENTED NE-BOW VERTICAL
BOWEN PATENTED VERTICAL OFFSET
BOWEN FLAT OVAL AND ROUND WIRE TRAVELERS



U. S. Ring Travelers have a downright ruggedness that KEEPS them traveling month after month and year after year, with a trouble-free efficiency that's more sought-after today by harassed, production-strained mill men than ever before.

Made of the finest steel alloys, precisely uniform in weight and shape, these famous travelers are more than durable—they "stay put" at even the fastest speeds, and maintain the even, consistent tension which the production of smooth, quality yarn requires.

They're the finest of "seasoned" travelers, tested in hundreds of mills and demanded constantly by an ever-increasing number. Sample them tomorrow—next week, in YOUR mill. Contact your nearest representative, or write for details and prices.

U.S. RING TRAVELER CO.

U. S. RING TRAVELER CO.

PROVIDENCE, R. I. GREENVILLE, S. C.

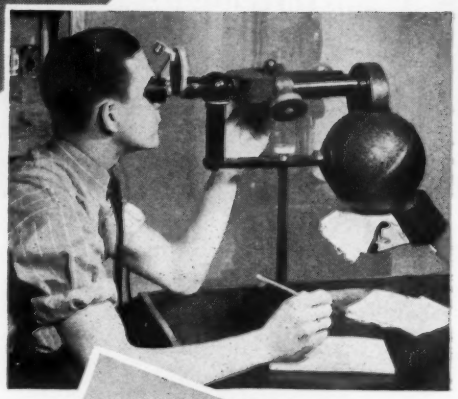
AMOS M. BOWEN, Pres. and Treas.

Southern Sales Representatives

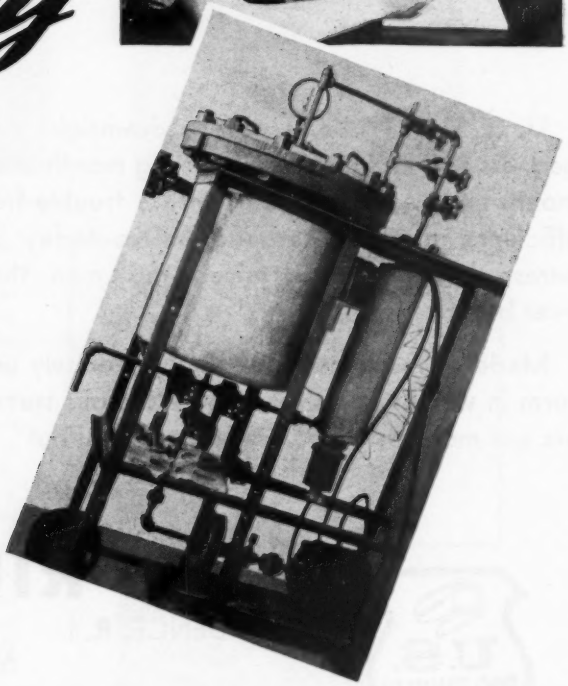
William P. Vaughan, P. O. Box 792, Greenville, S. C. Torrence L. Maynard, P. O. Box 456, Belmont, N. C.
William H. Rose, P. O. Box 792, Greenville, S. C. Oliver B. Land, P. O. Box 158, Athens, Georgia

STANDARD TRAVELERS

STANDARD SILICATE Kier-Boiling SERVICE



Our Laboratory Can Help You



To

- ✓ **Make your Kier-Boiling formula most effective**
- ✓ **Improve the whiteness of your fabrics**
- ✓ **Assure minimum tensile strength loss**
- ✓ **Obtain maximum absorbency**

We invite you to bring your problem to Standard —to make full use of this scientific method of developing the most effective procedure for your particular needs.

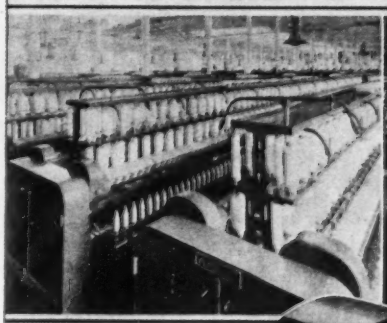
DIAMOND ALKALI COMPANY • Standard Silicate Division

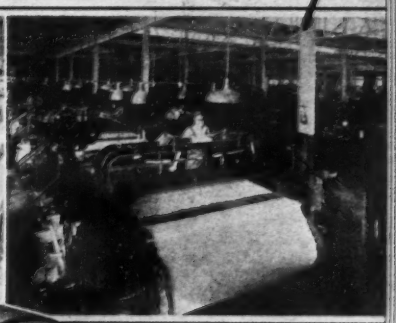
General Offices · PITTSBURGH, PA.

Plants at CINCINNATI · JERSEY CITY · LOCKPORT, N. Y. · MARSEILLES, ILL.

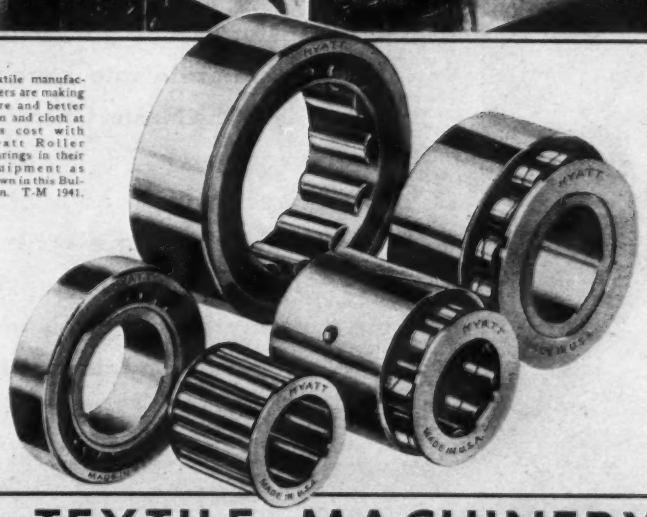
WE WROTE IT FOR YOU, MR. MILL MAN— ASK FOR YOUR COPY

HYATT *Roller Bearings*





Textile manufacturers are making more and better yarn and cloth at less cost with Hyatt Roller Bearings in their equipment as shown in this Bulletin. T-M 1941.



IN TEXTILE MACHINERY

To help you make more and better yarn and cloth, at less cost, this bulletin will prove of considerable value.

It shows how Hyatt Roller Bearings are applied to preparatory, weaving and finishing machinery to increase production, improve quality, save repairs and power.

Bulletin T-M 1941 was originally distributed at the Southern Textile Exposition. If you didn't get a copy, or want another, it's yours for the asking. Sent free upon request to any mill or textile machinery man.

Sixteen pages of illustrations and factual data that the modern-minded mill man wants. Don't fail to get your copy. Hyatt Bearings Division, General Motors Sales Corporation, Harrison, New Jersey.

HYATT

ROLLER BEARINGS

QUIET **KEEP THEM YOUNG WITH HYATTS**

Nature's
STARCH LABORATORY

Wherever corn grows, Nature's magic transforms sunlight, water and carbon dioxide into starch. Man emulates the Master Chemist by processing starchy kernels into products to serve many industries. ★ STEIN-HALL chemists have developed highest quality, maximum economy textile starches and gums, all backed by technical experts whose broad mill and laboratory experience will help you solve your sizing, printing and finishing problems. ★ For three-quarters of a century, STEIN-HALL Corn Starch Service has expressed a sincere and constant effort to create and maintain a relationship of mutual benefit and confidence with all customers. ★ That sound policy has weathered two wars since 1866. *You can depend upon it now!*

SH

STEIN, HALL & COMPANY, Inc.

285 Madison Avenue · New York — 1011 Johnston Bldg. · Charlotte, N. C.

LABORATORIES AT . . . NEW YORK · CHICAGO · CHARLOTTE · PROVIDENCE · LONG ISLAND CITY N. Y.

1866 1941 75th Anniversary STEIN-HALL

★ ★ A TEXTILE STARCH FOR EVERY TEXTILE PURPOSE ★ ★

BUY HALF AS MANY PICKERS

With new PICKMASTER, there are no "lefts" and "rights." "Balanced-Head" construction centralizes shuttle point hole in line with picker stick.

The "PICKMASTER," an improved design of leather picker, which stays tight on the stick and also eliminates the problem of buying and stocking "lefts" and "rights," has been announced by Graton & Knight.

Eight years ago, this same company contributed the accurately-prebored "life saver" hole which saves the loom fixer's time and helps distribute the shock of the shuttle blow throughout the picker, thus lessening wear at any one point. The new PICKMASTER adds these improvements:

"*Balanced head.*" The machined hole is lined up laterally with the center of the loop. This avoids having more force exerted on one side of the head, which causes many pickers of the usual design to lose shape and split.

With the PICKMASTER, only one piece of leather, continuously wound, is used for a two-ply picker. This permits centering the face of the picker with the loop.

Furthermore, splitting is also prevented by trimming the bottom and top so that neither overbalances the other.

Special tanning and finishing processes produce an extremely firm and stretchless collar which keeps the PICKMASTER tight on the picker stick despite constant battering on high-speed looms.

PICKMASTER is rounded and polished for use when weaving rayon as well as cotton. All rough spots are removed to prevent catching a filler. And the inside edge of the loop is bevelled for easy installation.

PICKMASTERS have already been tested in service and enthusiastically received. Make a trial on *your* looms — order PICKMASTERS made of extra-resilient "Hairitan" leather (or oak) from your distributor. See list of G & K distributors on special G & K page in THOMAS' REGISTER.

for Pivoted Motor Bases
a pliable, true-running, low-stretch belt.
for Modern Group Drive
a pulley-gripping, low-stretch belt.
for Shifting or Step-Cone Pulleys
a firm, first-quality oak belt.
for Oil, Heat, Acid Fumes, etc.,
a special tannage.

THERE'S A RIGHT BELT FOR EVERY DRIVE... NOW YOU'LL FIND IT IN G & K's "FRONT LINE"

Graton & Knight offers a complete line of leather belting for complete range of transmission requirements. If you want increased machine output on continuously-operated production drives — pick Research. If you have shifting drives, flange or step-cone pulleys, Heart-Oak is the firm, first-quality belt to specify.

On pivoted motor base drives (small pulleys, constant flexing), you need a *pliable* low-stretch belt — that's Research.* And for severe atmospheric conditions — Spartan gets the call.

They are all Graton & Knight belts, manufactured in the same plant that does the tanning. From raw hide to finished belt — G & K craftsmen build in qualities essential to efficient transmission.

ALSO: Pryz-Oak (for light drives), Golden Chrome, flat link belting, and special belts for special machines.

Graton & Knight Belting turns more pulleys than any other make in the world!

GRATON & KNIGHT CO.

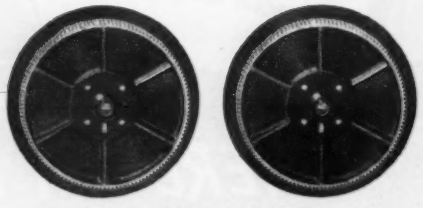
Tanneries and Manufacturing Plant at
WORCESTER, MASSACHUSETTS

GRATON AND KNIGHT

We are the only leather belting manufacturer with complete nationwide service facilities. See page in THOMAS' REGISTER.

*Write for new free bulletin, "The Right Combination for Short Center Drives."

LOOM BEAMS



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PROVED—
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Superior in Operation and Economy

The beam barrels are made of a select grade of suitable wood, thoroughly seasoned. Journals are made from a tough plow steel to increase the wearing life. The wood grain is protected from moisture by a coat of special sealer and lacquer. All barrels are machined straight and true.

The beam heads are made of a high grade cast iron and are designed to reduce breakage. The pocket and bore of head is machined to fit barrel snugly and squarely.

The loom beams run true. Their sturdy and rugged construction will give long and satisfactory service. Our loom beams will help you to increase your weave room efficiency.

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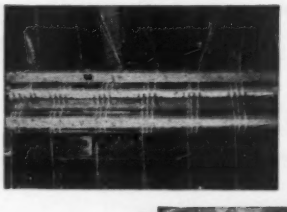

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GEARS . . . Gears of all types —noted for their efficiency and durability.

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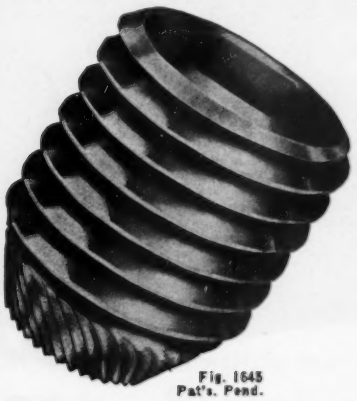

Fig. 1645
Pat's. Pend.

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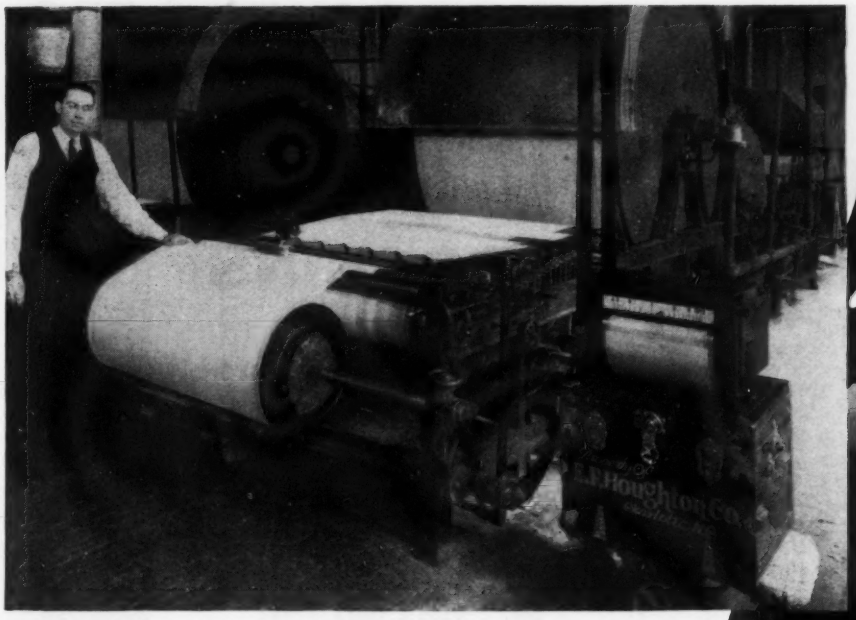

Moist-O-Graph used by Houghton to measure moisture content of sized warp. Details of Check-Up Test are described in folder illustrated below. Send in coupon for your copy.

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A sizing compound unequalled in concentration, efficiency, and economy makes a better size. Unexcelled technical field service and laboratory investigation supply a complete story of your results.

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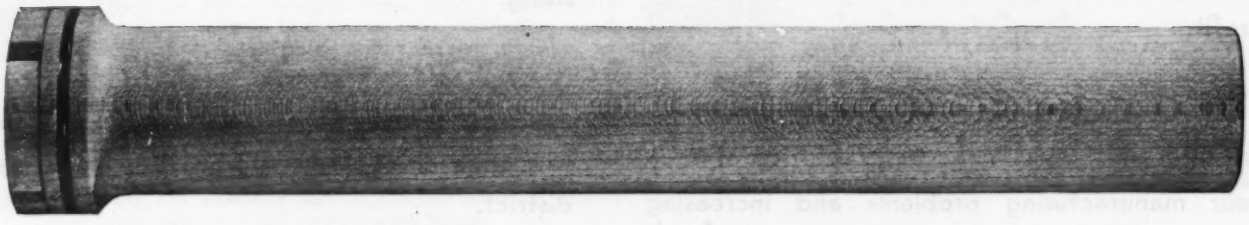

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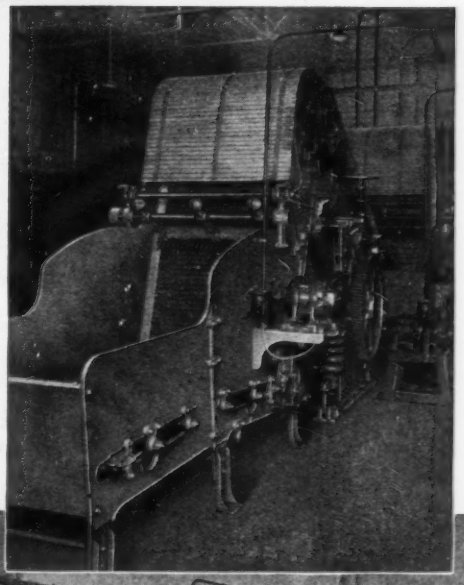

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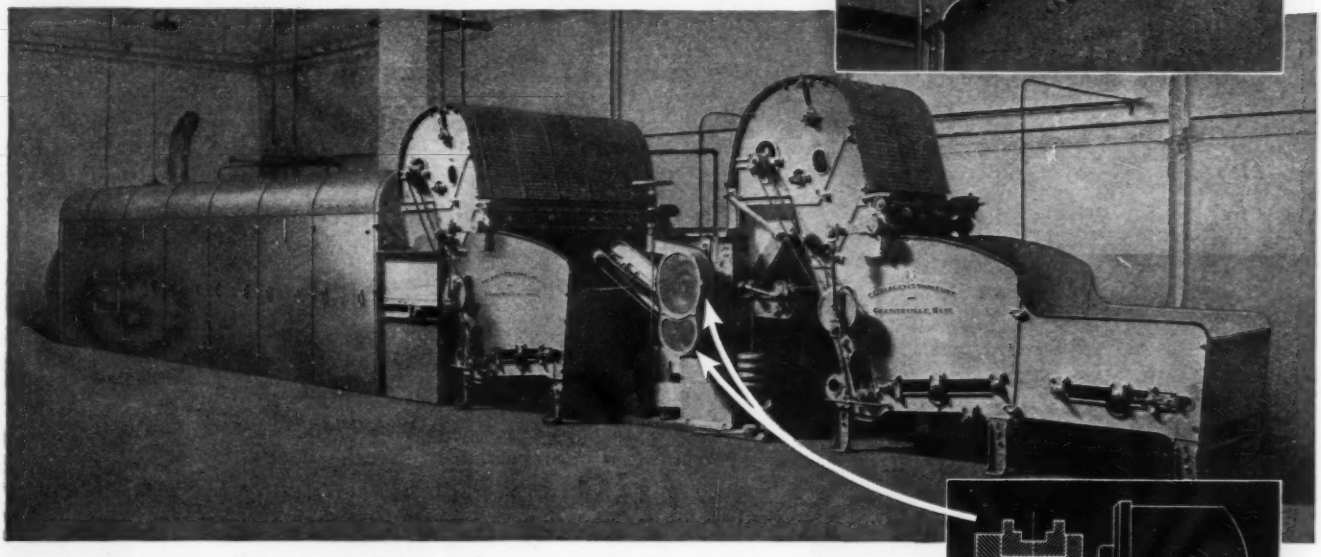

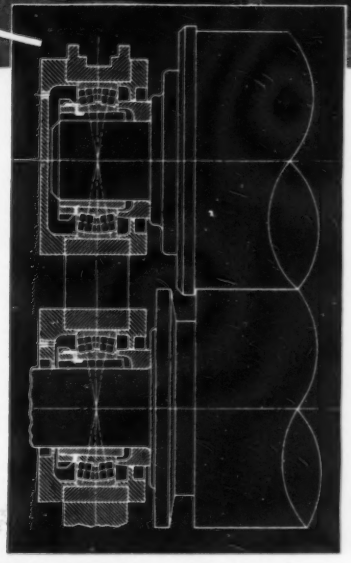

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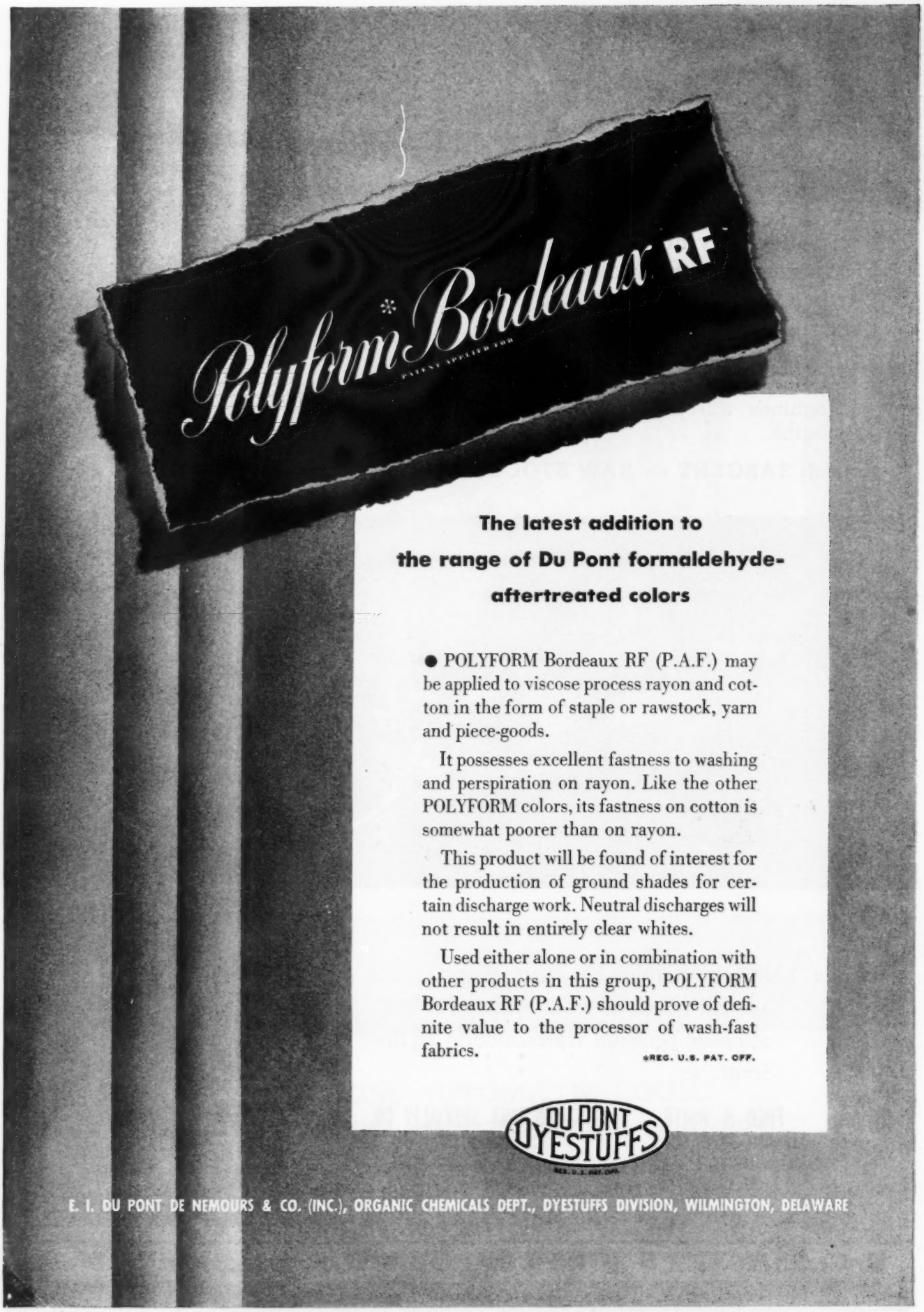

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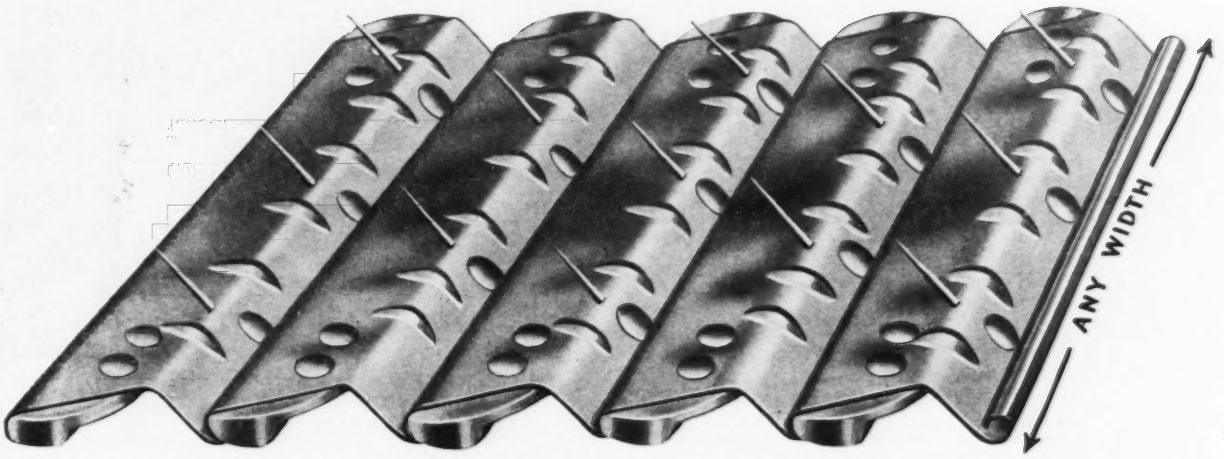

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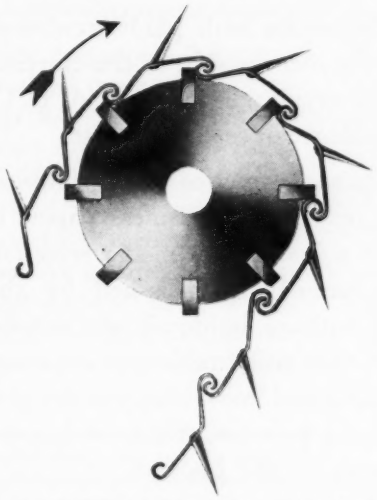

As shown above, the teeth of the driving roller engage into the interlocking joints of each lath. Positively no slip.

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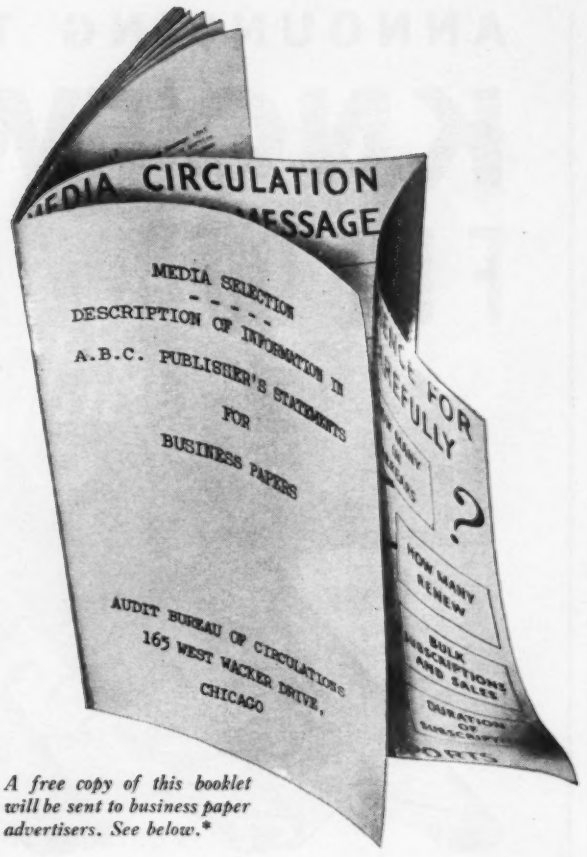

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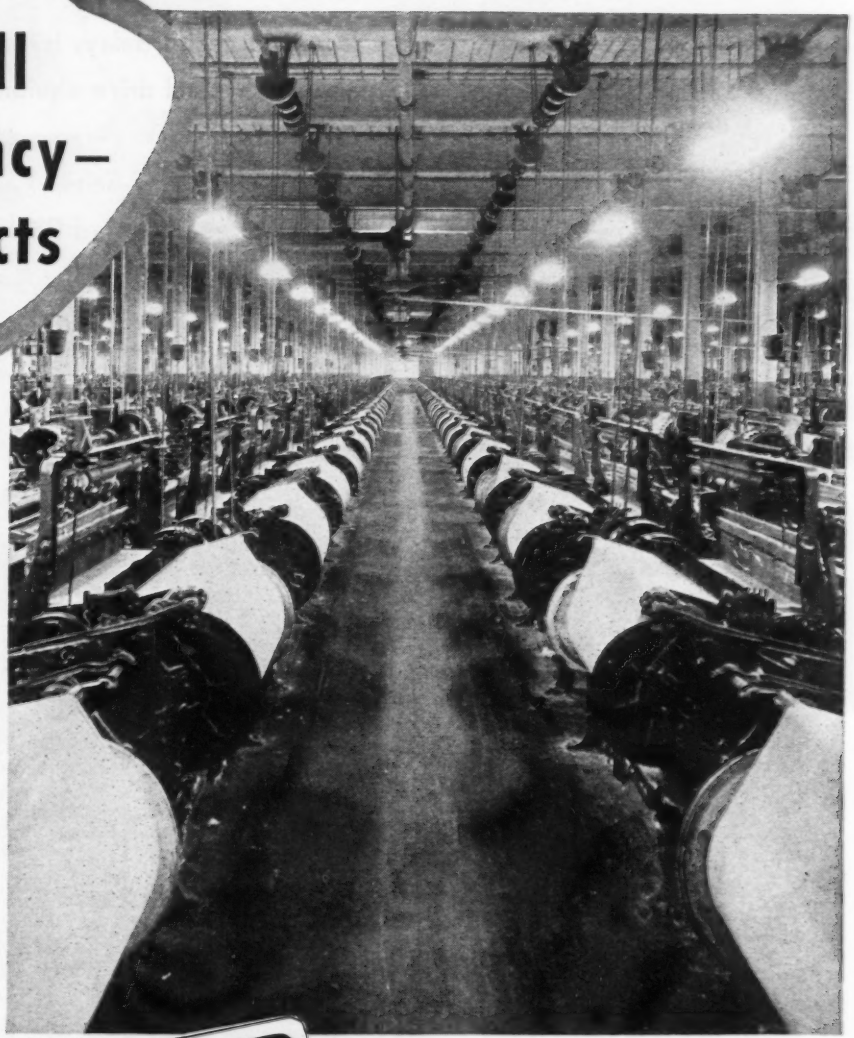

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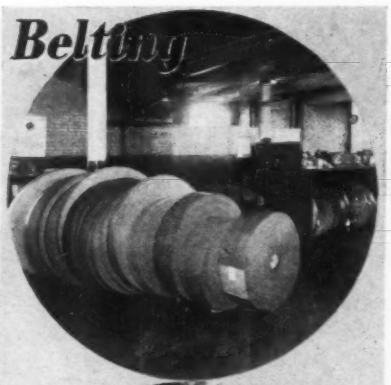

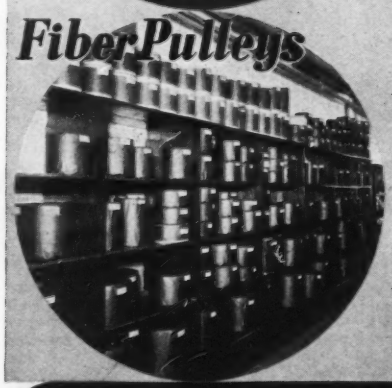

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Your workers get brilliant light reflection with DULUX because of its intense whiteness. And because it stays cleaner and resists yellowing, DULUX *keeps* its brilliant whiteness. This durability of DULUX means a longer time between repaintings, greatly reduced paint overhead. Find out more about DULUX High-Hiding Mill White.

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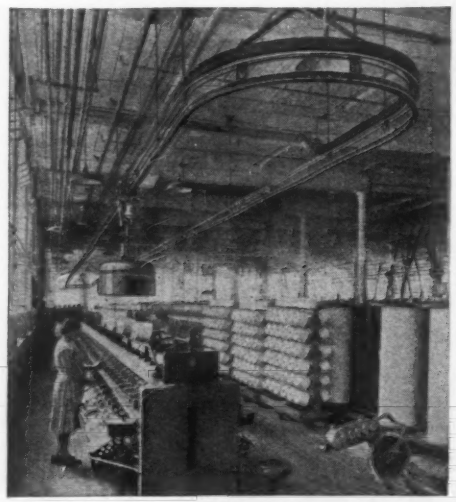
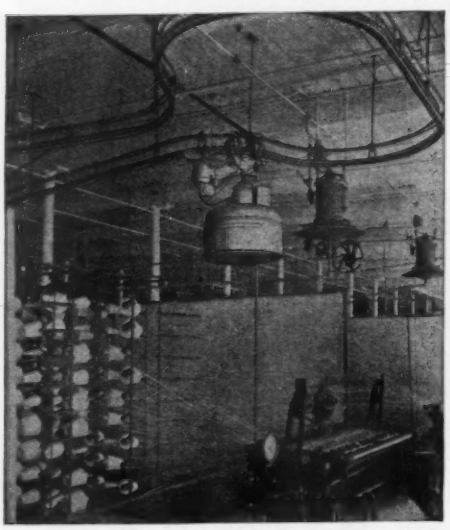
You get more good yarn from modern machines with –

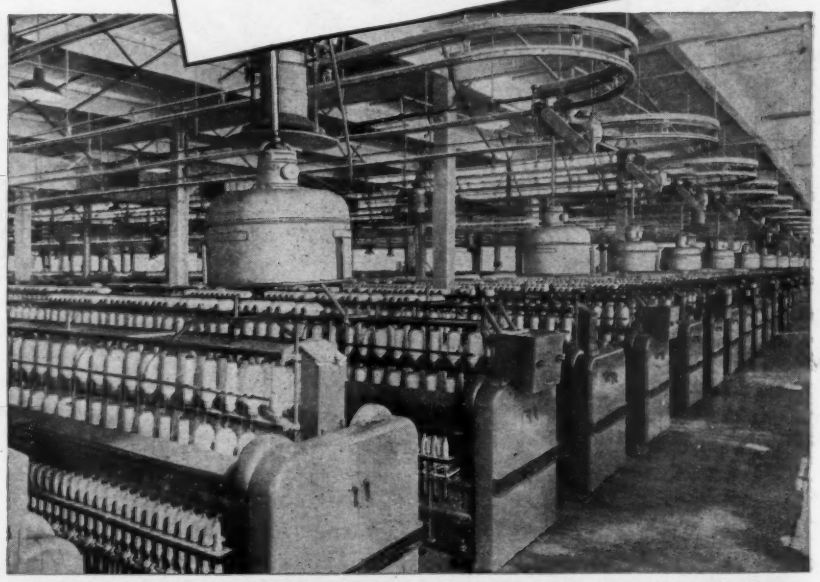
Controlled CYCLONIC Cleaning

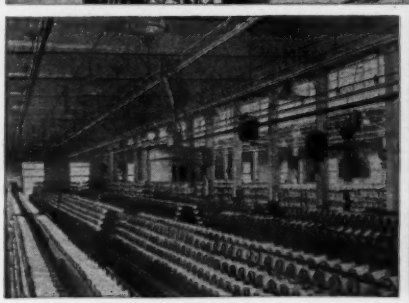


Clean yarn from winders means less breakage hence few bad transfers on the warpers.

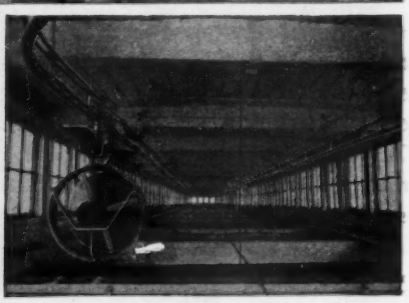


Every stop means lost production. Clean yarn keeps high speed warpers running smoothly.





Swirling columns of air circulate around cones to prevent lint accumulation.



High velocity fan travels within the monitor to keep this section clean.

Long draft spinning, together with modern high-speed twisting, winding and warping machines, all throw out more short fibers and thereby set up a lint problem.

Hand cleaning is costly since it limits the number of sides a spinner can handle and is the means whereby gouts get into the yarn.

Automatic cleaning with swirling currents of air, carefully directed, removes lint before it can accumulate. This means continuous production of clean yarn which in turn keeps subsequent machines operating at capacity. Let an American MonoRail engineer explain further advantages. Write for copy of 24 page book.

AMERICAN MONORAIL

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SERVING THE
Textile Industries

Volume 105 MAY, 1941 Number 5

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W. A. MCGEE, Box 562, Charlotte, North Carolina. (3-4932).

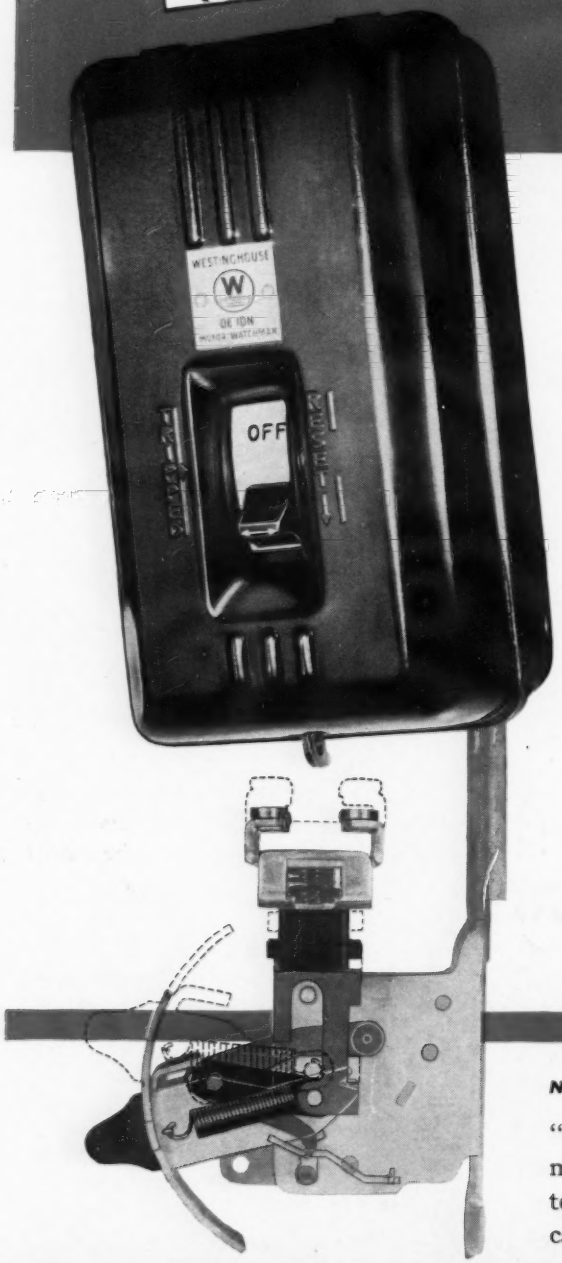
A. E. C. SMITH, 218 Auditorium Bldg., Cleveland, Ohio. Cherry 6339.

FRANK P. BELL, Hotel Buffalo, Buffalo, N. Y.

quick make-

AS WELL AS

"QUICK-BREAK" ACTION



ANOTHER REASON FOR LONGER CONTACT LIFE... CONTACTS CANNOT BE "TEASED"

Quick-break opening of contacts on a manual across-the-line starter is essential to prevent dangerous arcing and burning of contacts. Not so well recognized is the fact that *quick-make* action is also an important factor in long contact life.

If contacts meet slowly, they start to carry full starting current before full contact pressure is reached. They may be "teased"—touched together but not latched, and then allowed to open, causing burning.

The Westinghouse "De-ion" Loom Switch has both positive quick-make and quick-break action to doubly safeguard contacts against burning. Together with "De-ion" Arc Quenchers, Bi-Metal overload protection and interlocking covers, Westinghouse Starters offer longer life and lower maintenance costs with complete safety. It will pay you to investigate. Write Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., Dept. 7-N.

NO DEAD CENTER POSITION... NO "TEASING" OF CONTACTS

"De-ion" Loom Switch toggle operating mechanism and movable contacts. When leverage passes center, spring tension gives the quick-make or quick-break action. Contacts cannot be held in dead center position, or "teased."

J-31126

Westinghouse

"DE-ION" LOOM SWITCH

Textile experience gives you better loom motors

IMPROVED EFFICIENCY OF WESTINGHOUSE MOTORS FOR MODERN HIGH-SPEED LOOMS GIVES MORE YARDS PER KILOWATTHOUR

HE KNOWS HIS BUSINESS

The Westinghouse Service Man knows "what to do about it" when he gets a call from a textile mill. His factory training and practical experience enable him to give you a quick answer in emergencies. And to help you, he is on call day and night through our local service station.

BECAUSE their efficiency is maintained at a high point throughout the entire pick cycle, Westinghouse Loom Motors cut your current costs. They are especially designed to take peak loads with less power. They have ample reserve capacity for "breaking in" periods. Unit frame construction and vibration-proof fittings save maintenance, and their extra ruggedness means longer life.

You get these benefits from Westinghouse equipment because Westinghouse engineers are "textile minded." They know what electrical equipment must be able to withstand in textile service—and they know how to build equipment that can "take it."

That's why it always pays to consult the local Westinghouse office for any electrical requirement. Try it, for quick, capable action.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.
EAST PITTSBURGH, PA.

J-94382-A

Westinghouse
LOOM MOTORS

METHOCEL

Print Pastes... For

CIBA Salts & CIBA Bases

On

NAPHTHOL PREPARED GOODS...

Bear the Seal of Quality

WHEN PRINTED WITH THIS NEW CHEMICAL THICKENER

While Methocel . . . The new Chemical Thickener . . . gives definitely superior results in the way of color yield, brightness, smoothness, and sharpness in printing salts and bases, it is not recommended for vat or direct color printing.

CIBA COMPANY, INC.

P. O. BOX 25, STA. C **NEW YORK** GREENWICH & MORTON STS.

Vat Dyes of . . . *Sole Representatives of . . .*

THE DOW CHEMICAL COMPANY • SOCIETY OF CHEMICAL INDUSTRY IN BASLE

PROVIDENCE *BOSTON • CHICAGO • CIBA CO., LTD., MONTREAL • PHILADELPHIA • CHARLOTTE • SAN FRANCISCO*

SHORTS AND REMNANTS

Looking toward the Future

Prominent among the exhibitors at both the Southern Textile Exposition at Greenville and the Knitting Arts Exhibition in Philadelphia, were many manufacturers who were not in any way interested in encouraging business for current delivery. In fact, many of them were saying almost the slogan of the Aluminum Company of America, which ran something like "For Defense Today. For Industry Tomorrow."

Manufacturers selling to industry are faced with the problem of meeting enormous demands upon their capacity and still keeping an eye out for future business by taking care of existing customers as well as they can possibly do so. Sales organizations and advertising and promotional efforts are being utilized by far-sighted manufacturers to retain the good will and sales preference with industry for the permanent business secured from them.

The textile industry is the most stable of major American industries in that it suffers less from violent upheavals and business cycles both upward and downward, and far-sighted manufacturers are keeping up their activity in this field with a view toward business in the years to come.

Where to Buy?

"Please advise us the name of the manufacturer who makes roller bearing traverse rolls. . . . We had some bought about ten years ago but do not know the name of the manufacturer and have looked through COTTON but cannot find any advertising on this device."

A. A. CLINE

Secretary-Treasurer Falls Mfg. Company,
Granite Falls, N. C.

◆

Maintenance Methods

"We have just had a chance to read 'Maintenance Methods at the Marshall Field Mills'. . . . I wish to extend my heartiest congratulations to the authors for the splendid, comprehensive and clear way that they have set forth their ideas and practices."

W. S. PEPPERELL

Director of Purchases, Carter Fabrics Corp.
Greensboro, N. C.

◆

"Training Men"

". . . I feel that the value of this article [Training Men for Key Positions in the Textile Industry, p. 109 COTTON] is increased because it reflects the views and opinions of a practical man who has learned from actual experience as contrasted with articles written by theoretical men sitting behind desks. . . . We have had approximately 700 copies of this article mimeographed and plan to distribute one to each of our supervisors and to all the men in key position. . . ."

J. C. COWAN, JR.

Vice-President,
Burlington Mills Corp.,
Greensboro, N. C.

"Please send me ten reprints of 'Training Men for Key Positions in the Textile Industry', by Mr. Allen Jones as published in your March issue."

W. H. GRIER

Superintendent,
Rock Hill Printing and Finishing Co.,
Rock Hill, S. C.

◆

Spiders Work for Defense

Somebody may be pulling our leg, but according to "The Swirling Column" of American MonoRail, March 1941, "some 200 spiders are now working for defense. Their Job: making webs, which are invaluable as hair lines in gun sights and periscopes."

"Life and Care of Spinning Rolls"

"Some months ago you had an article giving a very thorough account of the life and care of spinning rolls. . . ."

G. A. LLOYD, JR.

Equinox Mill,
Anderson, S. C.

(A number of articles in 1939 and 1940 covered this subject. Readers asking for articles previously published will assist us greatly if they can be specific regarding the material or if they will check the cross-index as carried in the December 1940 issue for the specific article desired.)

◆

Article on Lunch Wagons Wanted After 4 Years

"A year or so ago [actually the March 1937 issue] you published the results of a study on the advantages and disadvantages of lunch wagons in mills and factories during working hours. . . . We would like to see this article . . ."

D. B. OWENS

Purchasing Agent,
Riverside & Dan River Cotton Mills,
Danville, Va.

Signs of the Times

"I am very much interested to know the names of cotton mills which manufacture shade cloth. . . . [our regular sources] cannot give us prompt deliveries, being sold up."

PAUL A. SCHULZ

President,
Absorbent Cotton Co. of America,
Valley Park, Mo.

"Are you in position to recommend to me a purchasing representative in the South? I am interested in buying cotton and rayon waste in large quantities directly from the mills . . ."

C. M. CANSTATT

1819 Broadway,
New York City.

"We have on hand an inquiry from certain mill friends who wish to put up [in India] a new textile mill with 20,000 spindles for manufacturing fine counts and fancy cloth. They will require complete equipment from the blow room to the making up department. . . . You may broadcast this inquiry."

(NAME ON REQUEST)

◆

"Mixing Wool and Cotton"

"Will you kindly let me know if you have any information regarding the mixing of wool and cotton. . . "

WALTER BROADBENT

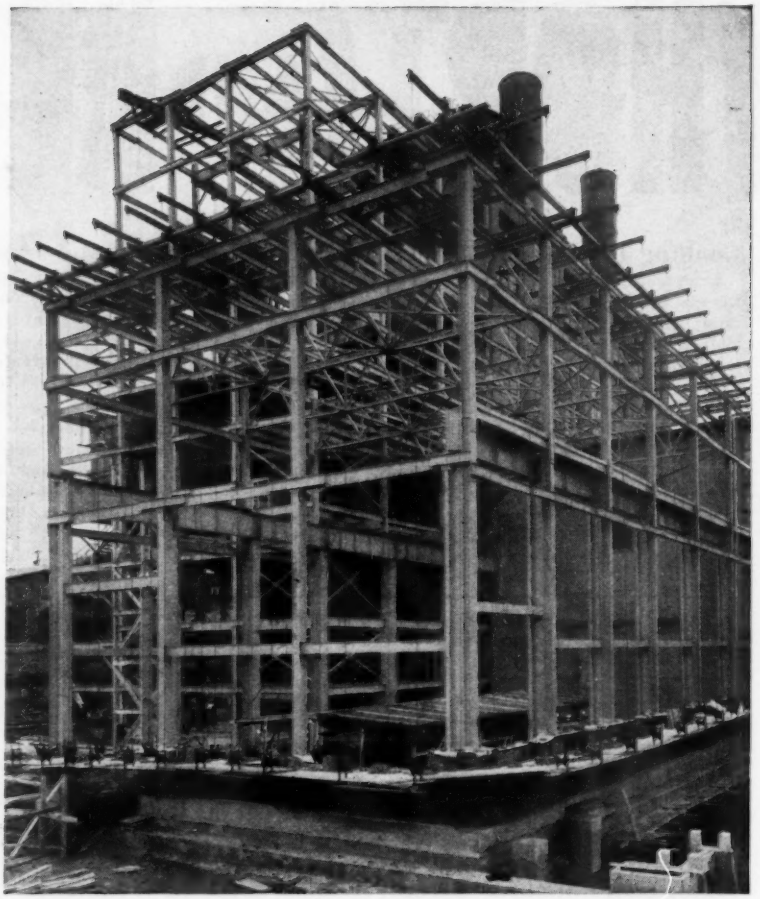
Amazon Knitting Co.,
Muskegon, Mich.

(Such articles as "The Blending of Textile Fibers", July, 1939, "Mixing Staples for Blankets", May 1939 and specific examples in the July Spun Rayon Number have treated the mixing of wool and other textile fibers.)

"Cotton" Booster Flies 10,000 Miles to Greenville Show

● 10,000 miles by air to see the Greenville Textile Show is the record of R. M. Fraser, associate manager of S. A. Fabrica Argentina de Alpargatas, Buenos Aires. Mr. and Mrs. Fraser were featured visitors at the Show, with Mr. Fraser looking over mill equipment for his textile plants in Buenos Aires, Montivedeo, and Sao Paulo. Mr. Fraser, along with other progressive textile manufacturers throughout South America, is an ardent reader of "Cotton's" advertising and editorial pages and stated two hours after entering the Exposition that, "I already feel acquainted with these companies and their products because of studying their advertisements in the pages of 'Cotton'."

Shown above is the welcome given Mr. and Mrs. Fraser at the Greenville Airport by G. Heyward Mahon, president of the Greenville Chamber of Commerce, Robert W. Philip, Editor of "Cotton", and George W. Murphy of H. & B. American Machine Company, whose son is employed in the Alpargatas plant at Buenos Aires.



Plant Atkinson is being doubled in size through the addition of a second 100,000 horse power steam-electric generating unit. Construction of the new unit will be completed next fall. Enlargement of Plant Atkinson was made necessary by present huge power requirements and the prospect of even greater demand in the future.

Built To Serve You

PLANT ATKINSON'S mighty capacity of 200,000 horsepower, firming our great hydroelectric developments, will be at the service of all of the people — mills, stores, office buildings, farms and homes.

It is built to serve YOU and all of the other industries of Georgia. Plant Atkinson needs your load on the lines and you need the kind of service represented by this great generating system.

You need the size and dependability of this plant — of Central Station service which it represents — in your business.

You need its freedom from interruption and voltage fluctuation. Its reserve capacity to meet unexpected demands for power.

More than that — backing up Plant Atkinson is a statewide network of electric power lines, embracing 38 hydroelectric and fuel generating stations. All of the system is interconnected by far-reaching transmission lines. The power and dependability of the whole system extends to every part.

Beyond that — the power resources of neighboring states are available whenever needed to meet the demand on the Georgia system.

When you use Central Station service of the Georgia Power Company you get something more than just kilowatt hours. You get the combined resources of a vast power development.

In short — you get *continuity*, and that means *quality*.

Would you be satisfied with less?

GEORGIA POWER COMPANY

COTTON
SERVING THE
Textile Industries

Vol. 105 May, 1941 No. 5

Inflation Is on the Way

ABOUT THE worst thing that could happen to this country during the next few months would be the beginning of uncontrollable inflation, and we are rapidly headed into that very thing. There is a widespread indifference to the implications of our present defense needs, and relatively few people realize the gravity of the situation or its urgency or the tremendous effort that this country is going to have to make within the next year or two. There are entirely too many people who are regarding the present industrial activity, incident to the defense program, as just another big boondoggle. For this, it is difficult to blame most people, because for seven or eight years we have been pouring money into this and that which was advertised to get us out of the depression and back onto a basis of reasonable industrial activity.

There are apparently millions of American citizens who regard the present emergency merely as a chance to feather their nests and get theirs while the getting is good. For this also, it is difficult to blame the average run of folks, who are first, last, and all the time interested in their own personal economic conditions. It is very hard to get the general public steamed up over a war in England or Egypt or Greece, or at least it is hard to get them steamed up to the point where they will realize that the temptation to profiteer off of our national emergency must be suppressed. It is just too much to expect of mass human nature to refuse the opportunity to cut a juicy profit off of war orders or to strike for higher wages from a busy factory.

However, the people who are running the United States have either got to sell the public on the gravity of the situation or finally do a lot of things to the public that it will not like and that will seriously shake the foundations of the nation. Certainly the people who are running the United States must realize that this is no time for profiteering or wage increases, and yet there are reports of widespread wage increases all over the United States. Practically every day there are news dispatches that 10,000 men here and 20,000 men somewhere else and 50,000 at another place have received increases of 10 or 15 cents an hour. With these notices goes the inevitable footnote that price increases in the commodities affected may be expected daily. Of immediate interest to the textile industry is the imminence of a higher wage minimum, which will mean an increase in wages all along the line.

ALL OF THESE wage increases are Simon-pure inflation, which will cut two ways. In the first place, every wage increase means a higher cost for the manufactured goods involved, and for such part of these goods as is intended for national defense, that means an increase in the national debt. For such part as will pass into consumer use, it means higher prices which will lower the standard of living of those who have not received wage increases, and either impel them to demand increases or make it necessary for the Government to increase subsidies to those groups which are not in a position to demand increased incomes except directly from the Federal Treasury. This sets up the vicious circle of wages chasing prices and prices chasing wages, and is pure, unadulterated inflation. In the second place, the defense effort is bound to restrict the supply of consumer goods, and yet people who are making higher wages and have more money to spend are going to create a greater demand for consumer goods. These two conditions are wholly incompatible. If you have more people with more money to spend for less goods, there is no humanly possible way of holding back inflation.

THE PRESENT fiscal condition of the United States is anything but sound, as we have frequently pointed out. We are starting into a tremendously expensive defense program with a national debt already large enough to frighten any sensible person. The only sane way that this defense program can be carried through is by hard work and national sacrifice. The kind of sacrifice demanded is not that exemplified by a willingness to give up a 20-cents-an-hour increase in pay and settle for 10 cents; yet that seems to be about the general attitude of the public on the score of national sacrifice for preparedness.

We continue to emphasize the dangers of wage inflation because it is a practically uncontrollable factor after it gets started. Profiteering by industry is subject to fairly good control through excess profits taxes, and these can be applied by Congress on a day's notice to discourage any tendency to gouge the Government on the part of those who own businesses.

There is no brake that can be put on wage inflation after the labor unions have started their drives for higher wages and have got them. The pathetic and terrible part about wage inflation is that in the long run it destroys the very people who insisted upon having it, because it doesn't give them anything except a very temporary increase in purchasing power, while at the same time it makes them think that they have it. Price increases follow so closely on the heels of production cost increases that there is little gain to anybody through this sort of inflationary activity.

Certainly no rational business man could ever object to seeing labor earn more and live better, but inflation has never helped the laboring men of this country, while it has repeatedly taken away from them the gains of years of hard work. Inflation wipes out the life savings of the working man by destroying the values in which his savings have been invested; by wiping out the business which employed him; by depressing business activity to cause him to lose his job, and thereby forcing him to live up his savings. We have already got entirely too much inflation in the United States, and much more will ruin us.

There has never been a time in the history of our country when inflation really did any of us any good, with the inevitable exception of the few successful profiteers who knew when to take their graft and retire with it. The decent, responsible business man and the decent, responsible working men have always suffered when there has been inflation. Unfortunately, it is very hard to make working people understand what inflation is, and why giving them an unsound raise in pay is not a good thing for the country. Our politicians have been telling the people of the United States for generations that higher wages meant a better standard of living, and this country has been told year after year by people in high places that inflation is good for us. Of course, they haven't put it that way, but they have insisted on constantly raising wages and raising prices, which is exactly the same thing.

THE INCREDIBLE DEVELOPMENT of the United States and its tremendous prosperity have been due to several very simple, basic conditions. In the first place, we had a virgin continent to exploit; incredibly rich, with almost every natural resource. We did not have to send our ships to the four corners of the earth to bring practically everything that we needed to support life. Practically everything was here for us if we would just bestir ourselves a little.

In the second place, our people were naturally energetic, ambitious and aggressive. It took that kind of people to pick up and leave everything at home and go out to make a living in a wilderness.

In the third place, we had a system of government which for several generations practically left every man alone to work out his own destiny, and thereby encouraged him to the utmost to pursue a life filled with accomplishment.

In the fourth place, while many other countries were carrying a crushing load for the maintenance of their military establishments, our cost for national defense was practically negligible. During those years when the individual in many other countries was paying 20 or 30 per cent of his total income to his government, chiefly for military purposes, the individual citizen in this country was paying three to five per cent to his government. No wonder the country grew and no wonder wealth accumulated.

We were prosperous because we produced prosperity; because the country was filled with every sort of needful thing for the betterment of human living. The great flood of production was accelerated by almost incredible improvements in the use of machinery. American factories could turn out a torrent of every sort of imaginable goods made from the ready raw materials so plentifully at hand, and turn them out with extraordinarily little manual labor.

THE HIGH STANDARD of living in this country was made possible by a high standard of production, and as long as earnings and wages were measured by production, we had prosperity, and plenty of it, but every time we have tried to forcibly tinker with the natural economic laws governing production and consumption we have come to grief. Even a child can understand that if a given factory with a certain number of employees can produce more goods with the same number of employees, they can share in the value of this increase without hurting the people who buy their goods; but if these same employees are paid more money for doing the same or less work, then the people who buy their goods will be definitely hurt by increased prices. Anybody can understand that, and yet some of the most profound economists don't seem to be able to believe it.

Any time working people are paid higher wages for doing the same work, this constitutes a form of inflation, because the increase they demand is not out of an increase they have created, and must necessarily diminish the purchasing power of other groups of people.

Widespread wage increases in a time of national emergency are not only unsound, but practically criminal. They are just as vicious as widespread profiteering by industry, and perhaps more vicious in effect, because uncontrollable.

This country has positively got to do something to stop strikes until the present emergency is over, and anybody should know that the way to settle strikes is not to give the strikers everything they ask for, because they can always ask for more; and while they are asking for it, production is at a standstill in vitally important factories. The problem of preventing strikes grows more difficult the longer action is delayed. Every successful strike breeds more of them. Of course, a very large number of these strikes are purely political, being merely factional fights between different labor organizations. Many of those are last-ditch fights by closely organized groups to get control of large numbers of workmen. The stakes in these political battles are the hundreds of millions of dollars in dues that will pour into the treasuries of those organizations that can corral the workmen into their folds, and keep them there forcibly by closed shop agreements and check-off arrangements for collecting the dues. Undoubtedly a good many of our leading

(Continued on page 85)

A Word Picture and Biographical Sketch of the New President of American Cotton Manufacturers Association.

"Stewardship, Unlimited"

LATE ON a spring afternoon in 1903, a young Georgia boy and his father were driving back to the home of friends from the commencement exercises of old Emory College, at Oxford near Covington, Ga. The young man felt a sense of high elation. He had just received an A. B. degree, *magna cum laude,* from this historic institution; his commencement address had won for him a coveted medal for oratory and the applause of the faculty and the audience.

Youthful dreams of pursuing a career among the liberal arts and sciences—inspired and encouraged by the example and precept of a brilliant young uncle who was a member of the faculty—seemed near fulfillment. In fact, the young graduate already had been offered the principalship of a rural school.

But Dad, though proud of his son's accomplishments, had other ideas. A general store back home, having prospered, had led this typically practical Georgia farmer and business man into the erection of a small textile mill, and his plan was that his son should now begin training to take his place by filling a vacancy that then existed for a book-keeper in the mill office.

So it was that the college classroom, the lecture platform or the legal profession was deprived of a potential leader, and commerce and industry gained thereby, for the lad in this true story was William Nathaniel Banks, of Grantville, Ga., who has just been elected president of the American Cotton Manufacturers Association.

Let us look behind these distantly related events to find a picture of the man—and his works—now receiving the highest honor within the power of southern cotton-textile manufacturers, as a body, to bestow upon one of their fellow executives.

William was born on December 9, 1884, in Grantville, the third of eight children of Nathaniel Overton and Theopa (Bobo) Banks. His paternal forebears, of English descent, were sons of the soil, for several generations pioneers in Georgia agriculture. His mother, who still graces the family home in Grantville with charm and dignity, is a member of the Bobo family of Spartanburg, S. C.

As a lad, William showed early signs of the seriousness of purpose and will to achieve and to excel that have characterized his later activities and accomplishments. In his life, there was little time for play of the usual kind; there were so many things to learn, and his mind, even then manifesting an intelligent curiosity and desire for growth, was probing broad fields of thought and study. He finished the local public schools at 15, and was desirous of entering Emory. There were no standard high schools then, and entrance examinations were required for college matriculation.

William knew this, and he knew that attending college in those

days was expensive. So he wrote for a list of the required studies for the freshman class, and when he took the entrance examinations he also took—and passed—the freshman exams, and so entered college in the sophomore class, and was graduated in three years with highest honors—at 18 the youngest graduate of this historic old Methodist institution.

A guiding influence in William's early life, and throughout his school years, had been a brilliant young uncle, Dr. Marvin Banks—a student and teacher of economics and philosophy. The impress of his idealism and theories of life found fallow ground in the natural tendencies of William's mind, and so the high purpose of the young man's ambition was to follow his uncle's footsteps—as a college professor probing and interpreting the classics and the intangible verities. He would have made a good one, too—but now we are back to the buggy ride when Father Banks announced *his* plans.

William's father had prospered in the operation of a general supply store in Grantville—known familiarly and well as Banks & Arnold. This enterprise was typical of the conditions of the times, with a prostrated South struggling for economic and social recovery from the greatest intersectional strife and subsequent political vassalage in world history. With this reviving and proud hope, credit and supplies were necessary, and these general stores performed a distinct economic service. Credit had to be easy, and profits long. The careful managers made money, while rendering service to their neighborhood, and to a large extent, the capital thus produced was basic in the subsequent establishment of industry in the South.

Thus it was that William's father founded, in 1896, the Grantville Hosiery Mills, to make men's cotton hosiery. The mill business was experiencing healthy growth just as William left Emory and was assigned the job of book-keeper. Characteristically, though his youthful dreams were thwarted, William applied himself in filial obedience and with able industry to the task. Somewhat to his surprise, he found even at that early age that business itself contains all the essential outlets of real achievement and accomplishment, with thrills and romance all its own—whereas he had believed these things to be exclusive to the cloistered towers of the arts. And William Banks still carries enthusiastically that concept of commerce as a profession, and finds that it holds for the philosopher in business those same values which he had thought were being taken away on that buggy ride from Oxford.

In 1905, the company erected a 3,000-spindle yarn mill to supply the hosiery mill; this has since grown to 15,000 spindles, producing colored yarns for sale. In 1906, William was elected secretary of

William Banks at about the time of the buggy ride from Oxford College

the corporation, and in 1909, on his father's death, was made president—at 25 years of age.

William had by this time devoted his abilities to the business with such effectiveness, particularly as to the intelligent merchandising of his products, that, in 1920, an opportunity came to become chairman of the board of the Habersham (Ga.) Mills, with a substantial stock interest. Later, the holders of the controlling stock of the McIntosh Mills, at Newnan, 15 miles north of Grantville, prevailed on him to take the presidency of that corporation, and again, in 1930, he took charge as president of the Moreland Knitting Mills, at Moreland, Ga., which lies between Newnan and Grantville.

He occupies all of these positions actively today, concentrating his own efforts in administration and sales, with production in the hands of capable associates at each plant He has always felt that intelligent merchandising is the most vital asset to any industrial enterprise—and that conversely the lack of it is an industry's greatest weakness—and so, primarily, William Banks is Sales Manager of the enterprises he directs, and the outstanding success of his three yarn mills and two knitting mills is testimony of the soundness of his policy and of his own ability to execute it

Banks is a director of the Arnco Mills at Newnan, and president of the Rome Compress Company, of Augusta, but devotes his business activities to his yarn mills and knitting mills. He goes by Moreland every morning, stays at Grantville until noon, and spends the afternoons at McIntosh, with occasional trips up to Habersham in North Georgia—and in line with his job as Sales Manager, makes frequent trips to New York and other consuming markets. But wherever he may be, he is constantly in touch with the markets, and never releases his energetic, effective direction of sales.

Thus the business aspect; in looking at the man, there are several approaches which blend into a harmonious picture. Banks is a genuinely religious man; for 30 years he was superintendent of the Sunday School at the Grantville Methodist Church, and still teaches a class there. He carries his religion, in a practical way, into the conduct of his everyday affairs, and obviously has found no inconsistency between a steadfast christian faith and success in business. There is no semblance of hypocrisy in him, nor is there a bit of prudish intolerance of the acts of others. He has undeniably attained an enviable philosophy for his own life that is so rare in these days.

In business and economics, he is not a "liberal" in the present-day connotation of that term, but the admixture of his philosophy, training and experience has produced a balanced attitude that successfully bridges the old "conservative" and the "liberal" points of view. He has distilled the merits of each into his philosophy. He's really a "liberal conservative" or "conservative liberal." His head may sometimes be in the clouds, but his

"Cotton" snapshots at Bankshaven, showing President William N. Banks in different moods.

feet are always on the ground.

An outstanding trait of William Banks is a sense of obligation to his community, his industry, and his fellowman, a sort of "duty-consciousness" traditional in his upbringing and undoubtedly accentuated by his natural tendencies toward the philosophical and spiritual. He has served as president of the Cotton Manufacturers Association of Georgia, as chairman of the Carded Yarn Group, as a director of the Southern Hosiery Manufacturers Association, as a director of The Cotton-Textile Institute, and in other ways. In these services to his industry, he has been a willing, prompt and wise helper and leader. He is naturally a gregarious person, buoyant, wholesome, affable, easy to approach, and a congenial companion. He thinks clearly and sharply, considering both the end and the means of an action. He is prompt and positive in rendering a decision. In conversation he is quiet, thorough and possessed of an exceptional adroitness in drawing out of the other fellow all possible information on a subject in the formulation of his own opinion and position. Down in Newnan they tell the story of a townsman who was seen emerging from the drugstore in an obvious state of mental exhaustion. When asked the reason, he replied with the question: "Have *you* ever been catechized by William Banks?"

But when Banks rises to his feet to deliver a speech, it is as if there were a resurgence of those early-thwarted dreams, and a release of frustrated ambitions. Those who have heard him in this role will testify to his unexcelled abilities as an orator—whether the occasion is a group meeting, a Sunday School class or an important business convention. He early caught and has retained the ability for convincing, forceful, dramatic delivery of a well-planned and prepared address, and belongs to the old school of oratory with a style all its own. It is an entirely safe prediction that his presentation of the traditional President's Address when he retires as head of the American Association will be placed in the industry's archives as a historical epoch along with existing records of oratorical achievement.

On November 17, 1917, Banks was married to Miss Evelyn Wright, daughter of Congressman W. C. Wright, of Newnan. The marriage was the culmination of an extended courtship in which frequent Sunday School picnics to Pearl Springs, about two miles south of Newnan, played an important role. In 1930, having acquired the Pearl Springs property Mr. and Mrs. Banks built on a knoll overlooking the spring lake of their youth, a lovely home — called Bankshaven—which is an appropriate setting with which to round out this brief sketch.

Banks has had neither the time nor the inclination, nor has he ever felt the necessity, for acquiring any of the customary hobbies.

He finds his outlets for recreation and relaxation in the peaceful serenity and placidity of nature in her expressions at Bankshaven, and has attained a substantial local reputation as a landscape gardener and horticulturist. The house at Bankshaven sits, sequestered in pines and dogwoods, on a knoll overlooking the 18-acre lake, which is spotted here and there by graceful swan, raucous geese and diving ducks. Around the house and far out winding walks are thousands of shrubs —azaleas, camellias, boxwood, holly, rose gardens and walls of trailing bloomers.

Billy Banks has an innate, sensitive appreciation of these things, and the nurturing of two transplanted live oaks, "to provide shade on the patio for grandchildren yet to come" or the creation of a garden of blooming flowers "to give forth beauty to the world in the profusion of their color and fragrance", are real things to this substantial, successful business man who retains the essentials of his youthful dreams and ideals.

Banks hopes some day to retire to the tranquility of Bankshaven and indulge himself in the contemplation and study of the literature and arts towards which he once directed his aims. But it is doubtful if this will ever come to pass. He is too reluctant to pass by any element of his present responsibilities ever to relinquish them voluntarily to achieve the more selfish objectives of such retirement.

The Bankses have one child, a son—William, Jr.—who at 17 finishes high school this June. His grades since he entered school have never been below A—just as was true of his father's. William, Jr., has already shown abilities in journalism and in painting. Perhaps the youthful dreams of William, Sr., along these lines may yet come to fulfillment in the son—unless there is another opening for a bookkeeper in one of the mills when his college days are over.

Thus the end of a short story of a new leader in southern textiles. Like each of these sketches, it is written first as a deserving tribute for merited honor, and, second, as an analysis of the character and philosophy of the man so that the industry may anticipate the value of his leadership. It is safe to assume that the power and prestige of the American Cotton Manufacturers Association are well placed, in his hands, for the coming year. William Banks is a safe and sane leader whom the industry can follow with confidence.

A Salesman Speaks Out

By "R. Elddepa"

THERE HAVE been several articles in COTTON regarding the habits and shortcomings of salesmen who call on the textile trade. Some of these have been of a humorous nature, but even at that, have contained enough serious matter to give a thoughtful salesman food for consideration.

I do not recall having seen an article by a salesman commenting upon the different types of executives and purchasing agents on whom he calls and the methods employed in different offices for the reception of salesmen. As a salesman of years of experience in calling on textile plants in the South, I should like to take this opportunity to stick my neck out by commenting upon methods employed in different offices for the reception of the men who sell machinery and supplies to the textile mills.

It should be understood that these comments as expressed apply only to southern textile mills, because I have had no experience in other sections of the country.

Most of the concerns on whom I call are unconsciously typed in my mind as to the methods employed for receiving salesmen, and I am reasonably sure that this is true of most salesmen of long experience.

First, there is the type of mill office where a salesman calls and is greeted very pleasantly by the girl on the switchboard or at the information window. The salesman asks to see Mr. Smith, and is told that Mr. Smith is busy, but will probably be through in a few minutes. The salesman takes his seat and waits, sometimes interminably.

Mr. Smith is in his office with the door shut talking to some one, possibly another salesman or possibly someone from inside the plant. They may be talking business, but they may have finished their business discussion and are either telling good stories or discussing the latest war news. The point I should like to make here is that Mr. Smith does not know someone is waiting to see him, and it may be someone whom Mr. Smith would like to see without delay.

Unless Mr. Smith has left word with the operator that he is tied up in a conference and cannot be disturbed, what could be the objection to the operator's taking in the salesman's card or telling Mr. Smith on the telephone that he is waiting? Assuming that the reception girl takes the salesman's card in to Mr. Smith, and assuming further that Mr. Smith has finished discussing everything of importance with the man already in his office, the chances are that he will terminate the present interview in a few minutes and will then ask that the salesman be sent in. If the man already in Mr. Smith's office is another salesman, a new card coming may even help Mr. Smith to get rid of that salesman.

Another advantage of having a card sent in promptly is that Mr. Smith may prefer for the salesman to see someone else in his organization about the business for which he calls. In fact, the salesman himself may prefer to see someone else, possibly the superintendent, but does not feel like asking directly for the superintendent without going through Mr. Smith. If such should be the case, Mr. Smith could simply send word out that he is sorry to be tied up at the present and asking that the salesman see the superintendent. In this way, the time of both Mr. Smith and the salesman is saved.

And then there is the type of office where a salesman calls and inquires for Mr. Jones. The operator replies, "Go on back to his office, you will find him at his desk". You walk back to Mr. Jones' office and find him at a desk covered with papers. He is deeply engrossed in some subject far removed from the one you want to talk about. Mr. Jones looks up and asks you to have a seat in the corner until he is finished with the subject at hand. He continues trying to figure out the problem on his mind, but I ask you, can any one concentrate deeply on a subject knowing that someone is waiting in the corner to discuss something of an entirely different nature?

In the type just mentioned, what could be the objection of having someone in the front office bring back the salesman's card? This would give Mr. Jones an opportunity to finish the job at hand without interruption before the salesman comes in. If he is going to be tied up for some time, he could them send word back to the salesman expressing regret that he will not be able to see him for some little time and asking the salesman to come back later or to see the su-

Other recent articles on this subject appeared on page 67 of January 1941 and page 127 of March 1941 COTTON.—THE EDITOR.

"The salesman takes his seat and waits, sometimes interminably . . ."

What could be the objection of having someone take a salesman's card back to the mill man? . . .

It is unfair to both parties to make a salesman interrupt a mill man unannounced. . . .

perintendent or someone else. If the salesman bursts into Mr. Jones' office without announcement or without sending back a card, common courtesy calls for Mr. Jones to ask the salesman to have a seat until he is finished. For my part, I would certainly prefer to sit outside until Mr. Jones is ready to discuss the subject which I want to bring to his attention. Also, I know that if he is engrossed in some other subject and interrupts the problem at hand to talk with me, he will not be able to concentrate on what I want to talk about.

There is another type of office which, I am glad to say, is fast disappearing. This is the office where you give the girl your card, and she takes it back to Mr. Doe's office. She returns and asks you to have a seat saying that Mr. Doe will see you in a minute. The door to Mr. Doe's office remains open, and while you cannot see Mr. Doe and he cannot see you, you can see enough of his office and his desk to know that he is not busy. He is simply the type of man who thinks that every salesman should be made to wait a few minutes, because if he is permitted to come on in immediately, it may give the impression that the executive is not busy all the time. Fortunately, however, such types as this are very rare.

Then, there is the office where no one in the general office has the particular job of greeting visitors or salesmen. In such an office, the salesman walks to a window and no one pays the slightest attention. After shifting from one foot to the other and tapping his card on the shelf, he finally catches the eye of some one in the office who will grudgingly come to the window and take his card.

Fortunately for the salesman, the sum of the mills coming under these types are in the minority of the total concerns called on by the average salesman. In most cases, particularly where the salesman has been calling for a number of years and is well known in the office, he has no difficulty whatever in seeing the proper executive without undue delay. And that is the joy of being a textile salesman in the South.

While mill executives still joke about being pestered to death by salesmen, it is pretty generally recognized that they have a definite and useful place in the textile industry. The present day salesman who represents a reliable concern is not thinking merely of making a sale, but has the interest of his customer uppermost in his mind. If he is worth his salt, he will not take up any more of the mill executive's time than is necessary, if he sees that the executive is busy and has no time for casual conversation.

Maybe, if the truth were known, Mr. Doe isn't so busy after all. .

And now for a crack at some of my friends in the selling game. I have been told numbers of times by different mill executives that it is sometimes a problem as to how to get rid of a salesman who overstays his time and does not seem to know when to leave. For such a salesman, I should like to offer the following to the executive:

1. After you have greeted the salesman and have finished the discussion necessitated by his call, and you are too busy for casual conversation, simply lean forward in your chair and drum your desk with your fingers.

2. If the above does not work, reach for a paper of some description, look at it for a minute, and then lay it down. Repeat this once or twice to show that you are anxious to get to something else.

3. Failing in the above, look at your watch and see if it is still running.

4. If none of the above works, walk out of your office and leave him. He deserves no better.

As for me, I would not exchange jobs with anybody. In the years that I have been calling on the textile plants in the South, I have made friends who, I do not believe, can be duplicated in any other industry or in any other section of the country. Making friends with such men and enjoying those friendships makes life worth living. To presume on such friendships in order to promote a sale or to take advantage of them in a deal would be unthinkable.

Nap Quality Tester

A device for testing the quality of nap on a comparative basis

A DEVICE for testing the quality of nap has been designed by Simon Williams and Lewis C. Sellers* of Austin, Texas. It was constructed primarily for use in making comparative tests on the quality of various American and Asiatic cottons in the manufacture of napped goods, but as the research progressed, it became evident that the nap tester could be used in securing other data concerning the napping operation that might prove useful to mills on this type of goods.

No claim is made for engineering ingenuity in the design of the tester, and the facts concerning its use are passed along by its inventors for whatever practical value the mills may wish to make of it. It is cautioned by the designers of the machine that it can be utilized for comparative purposes only and will not yield absolute values for any property or group of properties.

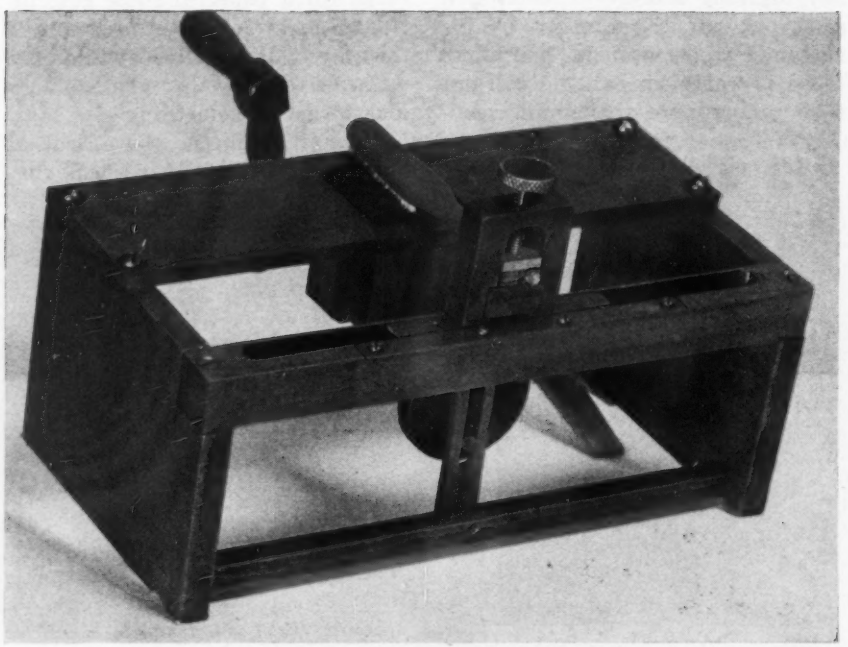
The device has shown statistically sound data on the following points:

(1) The tenacity of the nap and the effect of napping room conditions upon this property. This, it is said, is important because the tenacity of the nap is a direct reflection of the clinging power of the fibers, which in turn is the deciding factor in the degree to which the napping process may proceed without fabric destruction.

(2) The effect of yarn unevenness and the effective limits of allowable variation in yarn count. These are also vital data to the entire operation of a mill producing napped goods. They will not only dictate the severity of the napping process itself, but will also affect the choice of raw stock and the processing in the spinning room. It can be shown, for example, that normal napping room practice will completely remove the fibers from thin places in the filling yarn, leaving actual holes in the fabric, covered only by a loose, easily removable tuft.

(3) The efficiency of the napping process, involving such variables as number of passes, speed of rolls, etc., and these factors interrelated with yarn count.

*Research technologist and research assistant, respectively, Bureau of Industrial Chemistry, University of Texas, Austin.



Front view of nap quality tester. Overall dimensions, exclusive of handle and brush support: height 3¼-inch, width 3⅝-inch, length 7⅝-inch.

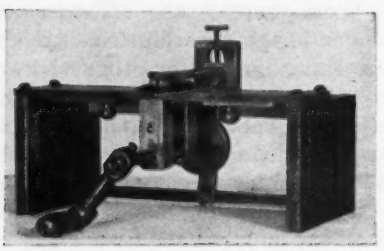
How to Use Nap Quality Tester

Since the nap tester is used for comparative purposes only, a mill could prepare any system of routine testing it may choose, but the following steps are given as used by Messrs. Williams and Sellers:

(1) Ten samples of each fabric to be tested are cut so that they are wide enough to pass through slots **C** in accompanying plan of nap tester, and long enough to be securely fastened by the tension clamps *A* and *B*. The long axis of each sample is made parallel to the filling. The number of samples required to duplicate the results of any series of determinations can easily be calculated by statistical techniques, if desired. Data accumulated in the laboratory clearly indicate that ten samples are adequate, using a 95 per cent probability.

(2) The edges of the samples are coated with celloidin or a similar film and the film is allowed to dry. Penetration is negligible and fraying is inhibited during the brushing.

(3) During the period that the celloidin is drying, the samples are conditioned to constant weight under standard atmospheric conditions. Any constant condition will be satisfactory. Messrs. Williams and Sellers used 70 degrees F. and 60 per cent relative humidity. Tolerance of plus or minus three was allowed for both temperature and humidity. This phase of the test takes from 24 to 36 hours. The weighing is preferably done on a



Rear view of nap quality tester.

LEFT SYMMETRICAL CROSS-SECTION OF NAP QUALITY TESTER

A and B—Tension clamp. The clamping screw B controls a sliding T-bar, which is aligned by the shoulders A. This bar effects a tension on the sample when the ends of the latter are inserted through slots C.

C—Slots as indicated.

D and E—Support and housing D for main drive shaft which is activated by handle E. Shaft may be motor driven.

F—Slot which guides the movement of the brush holder G.

G—Housing for brush and brush clamp.

H—Pressure screw and bearing plate for brush.

I—Brush. A brush with bristles cut to one-fourth inch, the bristles arranged in three rows with the central row offset so as to inhibit ridging, was found very satisfactory.

J—Coil Spring. Just enough pressure is brought to bear upon this spring to insure a brush pressure on the cloth equal to the weight of the brush only.

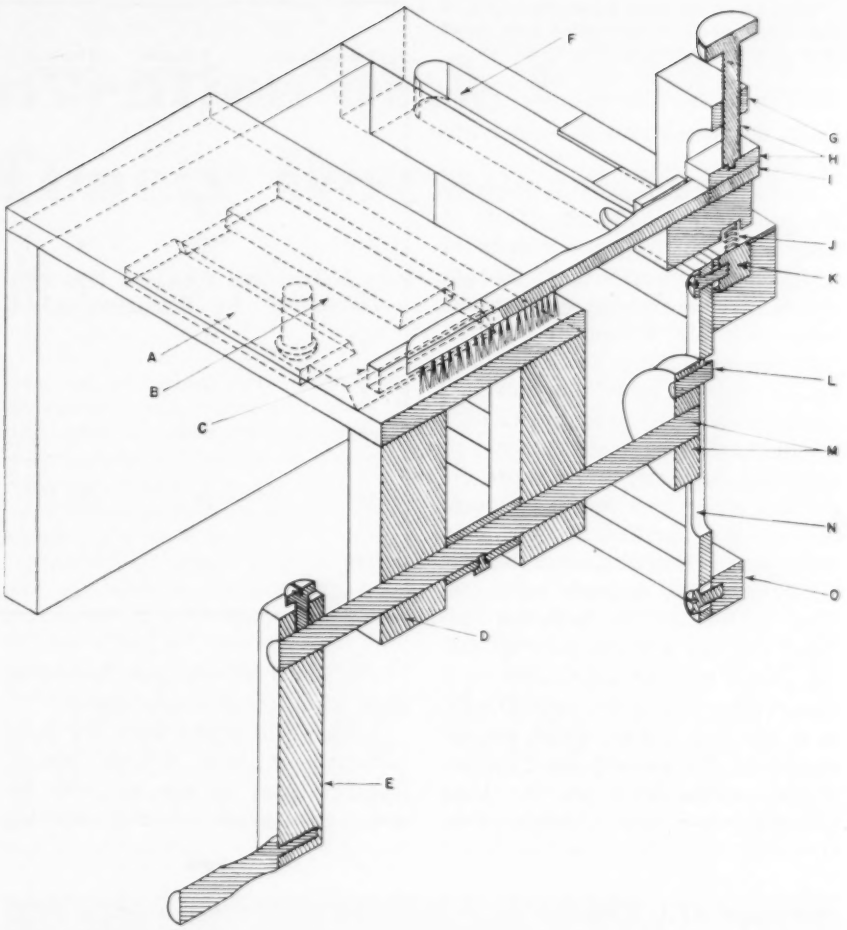
K—Sliding rod. This rod acts as a guide for the brush housing and at the same time moves the entire housing by the action of the screw connection to the cam and cam shaft.

L—Rod from cam wheel through slot in cam shaft. As the cam wheel turns, this rod activates the cam shaft and translates the rotary motion into reciprocal motion.

M—Cam wheel and main drive shaft connection.

N—Slot in cam shaft.

O—Slot enabling cam shaft to move and yet be connected at its base by screw.



torsion balance reading to hundredths of a milligram (if tester is built to the same dimensions as the one illustrated.

(4) *In the conditioning room* the samples are successively fastened and each side of each sample is brushed in both directions a minimum of 40 times as this is the smallest number yielding satisfactory data. The speed of brushing is maintained constant, two passes per second giving excellent results. The loss in weight is then determined. Thereafter, using 40 brushings as an increment, successive data are obtained until the fabric is distinctly destroyed in any one spot.

Analysis of the figures, as well as careful study of the appearance of each sample during the various brushings will reveal much of significance to napping room operators.

Effects of Temperature on Cotton Yarn

THERE has been interest on the part of mill men concerning the highest and lowest temperatures that cotton yarn can withstand before losing its properties as cotton yarn, and how long cotton yarn would have to be exposed to abnormally high temperatures before losing its original tensile strength.

Certain experiments and tests have been conducted on some phases of this subject, but there still seems to be some divergence of opinion as to the effects of heat on the cotton fiber. One author states that there is an indication of decomposition of cotton above 120 degrees Centigrade, and still another claims that "cotton when heated in air under conditions devised to exclude local overheating, is not measurably affected up to a temperature of 140 degrees C. after four hours."

Research on the subject of temperature effects on cotton indicate that deterioration depends upon such factors as relative humidity of the air, the presence or absence of sizing and finishing materials on the cotton, or of even minute amounts of the chemicals used in processing cotton, such as sodium carbonate, sulphuric acid, etc., but the rate of deterioration will vary with the conditions, and how far this deterioration will go before the cotton yarn is considered to have "lost its properties" is debatable.

For those interested in pursuing the subject further, it is suggested that a study be made of Research Paper RP1337, by James G. Wiegerink, research associate at the National Bureau of Standards, Washington, D. C. This report is entitled "Effects of Drying Conditions on Properties of Textile Yarns", and besides cotton, includes a study of "purified" cotton, mercerized cotton, clothing wool, carpet wool, viscose rayon, cuprammonium rayon, cellulose acetate, and degummed silk. Methods, procedure and results of the tests conducted are presented graphically and with comments.

Briefly, the tests show that heating the yarns for 6 hours at 221 degrees F. (at absolute humidities of 1, 57 and 94 per cent respectively) weakened all of them. The breaking strength of cotton

The table at the right shows the effects of heat and moisture on raw cotton yarn, based upon tests conducted by Mr. Wiegerink.

Temperature (°F)	Relative humidity	Absolute humidity	Time of exposure	Breaking strength (as % of original)	Elongation at break (as % of original)	Quality index
	%	%	hr			
221	1	1	1½	95	94	89
			6	94	93	87
221	48	57	1½	89	100	89
			6	92	95	87
221	79	94	1½	93	95	88
			6	95	92	87
257	0.5	1	1½	89	90	80
			6	88	90	79
257	24	55	1½	98	95	93
			6	93	90	84
257	42	96	1½	90	90	81
			6	92	88	81
302	0.2	0.5	½	96	90	86
			1½	94	90	85
			6	89	84	75
302	12	56	½	94	90	85
			1½	91	85	77
			6	89	80	71
302	20	96	½	85	90	77
			1½	89	86	77
			6	84	83	70

yarns decreased still more at higher temperatures.

Particular attention is paid in the test to the combined effects of heat and moisture, the results of which for raw cotton yarn are included in the accompanying table, taken from Mr. Wiegerink's report.

Other interesting facts brought out in the test show that purified cotton yarn is less resistant to heat treatment than raw cotton yarn, and that high humidity has a more degrading effect at constant temperature on the purified cotton yarn than the low humidity, but the raw cotton yarn is scarcely affected. This difference in behavior between the raw and the purified cotton yarns may be attributed to a protective action of the natural waxes in the raw cotton, which are removed by the caustic purification.

Also, yarns dried at the high humidity are more brittle than yarns dried at the low humidity, even after conditioning them.

Cotton will stand very low temperatures without serious injury. Temperatures as low as —80 degrees Centigrade are not expected to cause any marked change. However, at such low temperatures, wet cotton or cotton coated with proofing materials might become brittle, and, if subject to flexing, might be broken.

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Piedmont STA Holds Spring Meeting

The Piedmont Division of the Southern Textile Association held its regular spring meeting at the new Hotel Barringer in Charlotte, N. C., Saturday morning, April 12. B. M. Bowen, superintendent, Salisbury (N. C.) Cotton Mill, was in charge of the meeting.

Topic for discussion was a review of the interesting exhibits seen at the Southern Textile Exposition, held in Greenville, S. C., the week of March 31-April 5.

Ellis Royal of Charlotte, secretary of the Southern Textile Association, announced that the annual convention and outing would be held this year at the Ocean Forest Hotel, Myrtle Beach, S. C., during the dates of June 12-14, with the annual associate members' banquet being Thursday night, June 12, preceding the business sessions of the association that begin Friday morning June 13. The golf tournament will be held Friday afternoon, and another business session and election of officers Saturday morning.

David Clark made the announcement that the Textile Foundation has awarded the sum of $5,000 to be used in setting up a research and testing procedure, under the auspices of the Foundation, The Arkwrights, and the Southern Textile Association, wherein a man will supervise various tests, carried out in several mills, and write a comprehensive report of these tests, making the report available to the industry at large. Mill men having suggestions for tests to be made should contact the secretary of the Southern Textile Association.

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New Textile Publications

Fort Worth Steel & Machinery Co., Fort Worth, Texas. Comprehensive data book covering all types of v-belt drive applications. Also has information on Boltrim demountable hub sheaves, replaceable with minimum loss of time.

Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. Leaflet F-8604 descriptive of new 100-watt fluorescent luminaires. Descriptive data 33-680 on compressed air circuit breakers up to 34.5 kv., 1,500,000 kva interrupting capacity for indoor use. Descriptive data 3706.1 on fan-cooled explosion resisting motors. 33-220 on oil circuit breakers for starting motors. Order from Department 7-N-20.

Mathieson Alkali Works, 60 East 42nd St., New York City. "Mathieson Anhydrous Ammonia", 16 pages, covering chemical and physical properties.

Graham Transmissions, Inc., 2711 N. 13th St., Milwaukee, Wis. Manual No. 501 giving principles of metallic traction. Contains complete data on company's variable speed transmissions.

R-S Products Corporation, Wayne Junction, Philadelphia, Pa. 12-page bulletin No. 8-B featuring late models of standard and wafer type butterfly or blast gate valves for control of air, gas, steam and liquids.

Acme Electric & Mfg. Co., Cuba, N. Y. Fluorescent lamp ballast catalog, covering entire line of 62 types and sizes available for fluorescent application.

Graton & Knight, Worcester, Mass. Booklet on how to select short-center drive, giving advantages of leather belt, pivoted motor base drive.

The Texas Company, 133 Carnegie Way, Atlanta, Ga. March 1941 issue of "Lubrication", this one containing article on research and lubrication in textile machinery development.

Fairbanks, Morse & Co., 600 South Michigan Ave., Chicago, Ill. Booklet entitled "Modernizing Your Diesel".

American Cyanamid & Chemical Corporation, 30 Rockefeller Plaza, New York City. Two booklets, one on "Quandrafos" (sodium tetraphosphate), and one on "Industrial Chemicals".

Monarch Marking System Company, Dayton, Ohio. New folder featuring many different styles and sizes of tickets, tags and labels to meet the requirements of the Wool Labeling Law.

Manhattan Rubber Mfg. Division, Passaic, N. J. Revised V-belt engineering data book, including horsepower specifications recently adopted.

Reeves Pulley Company, Columbus, Ind. 6-page folder illustrating and describing the uses and advantages of speed control in the textile industry. Also, literature on hydraulic automatic control.

International Filter Company, 325 W. 25th Place, Chicago, Ill. Bulletin 1970, telling the story of Anex, a new substance capable of producing "distilled" water without distillation.

Glyco Products Company, Inc., 230 King St., Brooklyn, N. Y. Descriptive of Emulgor A, a new emulsifying agent for use with aluminum sulphate, sulphuric acid, etc.

Harvard Business College, Cambridge, Mass. "Wage Policies of Industrial Unions", by Solomon Barkin. A reprint from the "Harvard Business Review".

E. I. DuPont de Nemours & Company, Inc., Wilmington, Del. "Let's Talk about Painting Your House", a publication telling the homeowner what he needs to know about painting his home.

Augusta Convention of A. C. M. A. Hears Timely Discussions

Largest attendance on record enjoys splendid convention. W. N. Banks named as president; enlargement of association's functions planned

EXCELLENT addresses, announcement of constructive plans for improving the service of the organization, and an unprecedented attendance featured the 45th annual convention of the American Cotton Manufacturers Association in Augusta, Ga., on April 25-26.

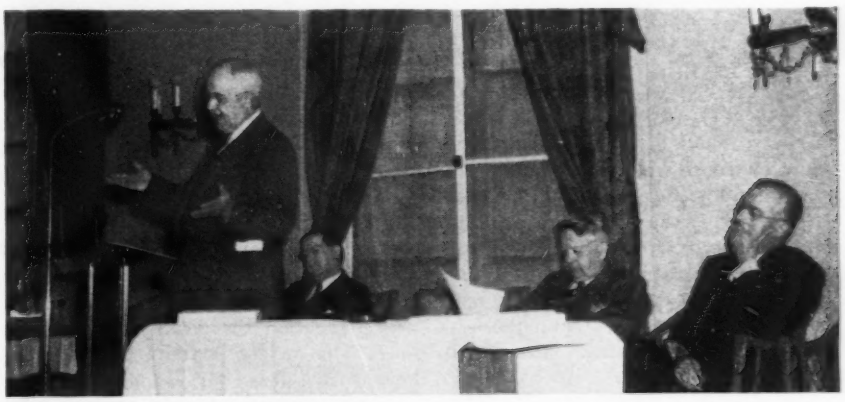
William N. Banks, president of Grantville Mills, Grantville, Ga., was named as president of the association for the coming year, succeeding Fred W. Symmes, of Greenville, S. C., who as presiding officer planned and executed the excellent program at Augusta. Charles A. Cannon, president of Cannon Mills Company, Kannapolis, N. C., who was in line for promotion to the first vice-presidency succeeding Mr. Banks, requested the nominating committee not to consider his name, because of pressure of personal and official business, and Herman Cone, president of Proximity Mfg. Company, Greensboro, N. C., was named first vice-president; and Hugh M. Comer, executive vice-president, Avondale Mills, Sylacauga, Ala., was elected as second vice-president. W. M. McLaurine, the association's able secretary-treasurer, was reelected to that position.

(A detailed biographical sketch and character study of Mr. Banks, the new association head, appears on page 65 of this issue of COTTON.)

Directors of the association, elected to fill vacancies on the board, include: Joe L. Lanier, West Point Mfg. Co.; Scott Russell, Bibb Mfg. Co.; W. H. Entwistle, Entwistle Mfg. Co.; R. C. Moore, Rhodhiss Mills Co.; and W. S. Montgomery, Spartan Mills.

A resolution adopted at the association's business session calls for the election, as soon as feasible, of a full-time executive vice-president for the organization, and the setting up of a department of public relations to be headed by the present secretary-treasurer. The executive vice-president is to be charged with the duties of "keeping informed as to events, conditions and situations which affect the interests of the member mills; setting up a library of information, statistics, laws and related matters; acquiring information, facts and statistics needed upon occasions by the various committees of the association; and representing the organization in conference with governmental agencies or authorities and such other conferences with such other associations, organizations or individuals as the board may direct."

Virtually the entire program of the business sessions touched upon vital current and future conditions affecting the nation and the industry. The first address of the first general session on Friday, April 25, came in the form of the annual report of the secretary, Mr. McLaurine, who, in addition to reviewing the multifarious activities of his office during the year, made an excellent address in the nature of urging textile mill executives toward a full adjustment to the new conditions created by the prevailing governmental philosophy in this country, by the current foreign wars and their impacts upon the United States, and by the reactions to come with the arrival of peace.



Secretary W. M. McLaurine in a typical gesture during his Augusta speech. Others on platform, left to right, President Symmes, Quartermaster General Gregory, and George A. Sloan.

George Sloan on Inflation

George A. Sloan, former president of The Cotton-Textile Institute, was the second speaker, and delivered a masterful discussion of present and prospective economic conditions before this gathering of his former associates. After reviewing developments in the current national defense program, particularly the drawbacks it is suffering from strikes, Mr. Sloan declared that, next to the urgency of building up our defense equipment and training, "I believe that price inflation is our major problem No. 2, which must be tackled with a common-sense approach to factors that make prices. * * * I confess I do not know what is meant by 'economic sanctions' unless we had an example last week with the freezing of steel prices immediately after but not until wage rates had shot up 12 per cent above a rate which was already the highest of all time." Mr. Sloan urged a study "behind prices" to explain just what factors make for price inflation, declaring that such a study will show "that wages are the crux of the problem, in their relationship to living costs, and to the price to be paid for defense and in our ability to minimize the shock of the post-war collapse."

Living costs, he said, were in January 1941, 14 per cent below the average of 1929. On the other hand, real wages were 25 per cent higher than in 1929, with 8 hours less work per week.

"Up to the present time," Mr. Sloan continued, "labor has materially benefited from the defense program, due to more regular employment, and, in some cases, to justifiable increases in wage rates where they were out of line within a particular industry, or with other related industries. This is all to the good, so long as the cost of living remains stationary. Under such conditions, the purchasing power of labor

Some "**Cotton**" snapshots at Augusta. Top row, first group, **Mr.** and **Mrs. C. M. Powell**, and **Mr.** and **Mrs. Edward Connor**; second group: **Donald K. Woodard**, of Newnan Cotton Mills, **J. W. Stribling**, of Universal Winding Co., and **W. H. Taylor**, president of Newnan. Second row: **W. A. Moorhead** tells a tall one to **F. Gordon Cobb**, **R. P. Sweeny**, and **R. E. Ferguson**; second group: **Charles Smyly**, of Eastman Cotton Mills, **T. M. Forbes**, and **W. A. Enloe** of LaFayette. Bottom row: **J. E. Sirrine** with **Mr.** and **Mrs. A. S. Bedell**; **Charles Summer** and **George W. Henderson**; and **Mr.** and **Mrs. R. G. Berlinghof** with **Arthur Harris** . . . . . .

improves, and the whole country benefits. But once we start a general rise in wage rates, especially in industries already paying the highest rates of all time—you will inevitably see a substantial increase in the cost of living. When wage rates go up, prices go up—then wages—then prices—and the next thing you know, living costs break through the ceiling.

"If high wages go still higher through the demands of labor leaders through the knowledge that the manufacturer wants to keep the plant going for defense even though the manufacturer's better judgment tells him that a wage rate increase just now is harmful to the national economy—then if prices are frozen by governmental edict based on the lower wage level—the result is nothing less than confiscation of the stockholder's equity, which is a sure way to nationalize or communize industry. Our ability to maintain reasonable price levels and to escape skyrocketing prices will necessarily depend upon cost of production, of which wage rates in practically every manufacturing industry is the chief element."

Major General Edmund B. Gregory, Quartermaster General of the Army, was the third speaker, discussing the part of cotton-textile manufacturers in the national defense program. Introduced as the industry's "largest customer", General Gregory told the cotton manufacturers of the procedures of his department in textile purchasing, declaring that the Army "does not expect any textile manufacturer to operate at a loss, but we do think that no manufacturer should allow profitable civilian orders to reduce his share of national defense production". He intimated that shortly the Army might find a departure from competitive-bid purchasing necessary to obtain desired supplies.

Fred W. Symmes, in making the annual address of the president, as the final feature of the Friday session, reviewed world conditions, national defense, competitors of cotton and other timely subjects, and then devoted the major portion of his remarks to the pressing subject of research, to increase and extend uses of cotton. He told of some of the leading agencies now working on the problem of cotton consumption, and encouraged these efforts.

"Research in the cotton-textile industry," he said, "could take several directions. It could begin with what may be termed practical research, a study of the improvement in the manufacturing processes that we now know. There is another field known as the field of pure research, in which a group of scientists are employed and placed in proper laboratory or experimental environment with no definite instructions other than a folio of ideas on which to work. This is the slowest, most expensive and yet often the most remunerative type in its finality."

Mr. Symmes declared that "another field in which we need the aid of research is that of merchandising; advertising, promotion and sales all need renovation. In the field of consumer research, we apparently know much, and yet we know so little. * * * The sooner our industry learns to take pride in its consumers as well as in the things it produces, just that much sooner shall we succeed in eradicating the deep-seated prejudices in many quarters that cotton textiles are, first of all, 'a cheap substitute'."

Discussing the marketing structure of the industry, Mr. Symmes named these as its outstanding weaknesses: (1) Mills producing without orders or for speculative purposes; (2) the

broker's methods; (3) an occasional tendency toward operating plants more for the benefit of the merchants than for the stockholders; and (4) too great a gap between marketing and production.

Complete integration, he said, would be the ideal solution, but as this seems immediately impossible, he suggested the following as possible helpful substitutes:

That units and processes be wholly or in part consolidated; that there be an educational program carried on between the mills and all factors in the marketing structure; that the broker work from a different point of view; and that there be a co-ordination of production and marketing in all of its phases.

Friday afternoon was given over to the association's annual golf tournament, under the direction of James D. Sandridge, and other recreational activities. Mr. Sandridge announced the winners of the golf tournament, at the Friday evening banquet, as follows:

Low gross for textile manufacturers, a set of irons: Fred S. Nicholas, of Abbeville (S.C.) Mills. Second low gross, a golf bag, Fred Moore, of Florence (Ala.) Cotton Mills.

Low net for textile manufacturers, a set of irons: W. H. Hightower, Jr., Thomaston (Ga.) Cotton Mills. Second low net, a set of wood clubs: Allan B. Sibley, Judson Mills, Greenville, S. C.

In the allied group, J. Iselin won a set of irons for low gross score, and second low gross prize, a golf bag, went to Alva G. Maxwell, of the C. & S. National Bank, Atlanta. In this group,

Informal snapshots of some of those attending the American Association convention in Augusta . . .

Some "Cotton" snapshots at Augusta. Top row, left to right: **J. M. Gregg** of Springs Cotton Mills, **E. A. Terrell** of Charlotte, **James J. Cook**, of duPont Rayon, **Mrs. Ellison McKissick** of Greenville, **Robert E. Henry** of Greenville and **Mrs. Henry.**

Second row: **W. E. Huger** of Atlanta and **Mrs. Kemp P. Lewis; Arthur Emery**, of Knoxville, **Charles Yates** of Atlanta, and **E. G. Emery** of Greenville; **Fuller E. Callaway, Jr.**, of LaGrange, and **Mrs. J. Craig Smith** of Sylacauga.

Third row: **Mrs. W. J. Carter**, of Greensboro, and **Mr. Carter; Mr.** and **Mrs. E. A. Terrell; Claudius T. Murchison**, of New York, and **Mrs. W. H. Suttenfield** of Statesville.

Fourth row: **Phil A. Brown**, of duPont Rayon; **Allan B. Sibley**, of Greenville; **Harry L. Bailey** of New York and **Mrs. B. B. Gossett; Ralph Deal**, of Charlotte (mugging) and **Mrs. Marvin McCall** of Charlotte.

Fifth row: **Mrs. Charles Summer**, of West Orange, N. J., and **Samuel I. Parker**, of Ciba Co.; **Ed Reed** of Sonoco, and **Mrs. Owen Fitzsimons; Mrs. Hugh M. Comer** of Sylacauga; and **W. S. Nicholson.**

Sixth row: **T. M. Forbes**, and **Mrs. Forbes**, with **A. O. Buntin**, of Atlanta; **Mrs. Allan B. Sibley** and **Walter Greer**, of Greenville; **Mrs. Earle R. Stall**, of Greenville, and **D. C. Newman**, of Charlotte.

Seventh row: **Mrs. Robert W. Philip**, of Atlanta; **W. H. Hightower**, of Thomaston, and **Mrs. W. J. Rooke**, of Atlanta; **R. D. Sloan**, of Greenville, **J. D. Sandridge**, of Charlotte, **W. R. Beldon**, of Clarkdale, Ga., and **Buddy Constable**, of Charlotte.

Some of the speakers and other dignitaries at Augusta. Left to right: **General Gregory, W. M. McLaurine, W. N. Banks,** the new president; **George A. Sloan; Retiring President Symmes; E. A. Kincaid;** and **William Harry Entwistle**

first low net prize was won by Reed Anthony; and second low net, a bag, by R. G. Berlinghof, of American Mono-Rail Co., Charlotte. W. N. Kline, of Stein, Hall & Co., won the blind bogey prize, an umbrella, and T. C. Davis, of the same company, was awarded a special prize for the highest score of the day, 168 strokes. Edmund Harding, of Washington, N. C., delivered a humorous and well-received address at the banquet, which was followed by dancing in the ball room.

On Thursday evening, preceding the opening of the convention, an impressive cotton style show was presented under the auspices of The Cotton-Textile Institute, under the direction of Fuller E. Callaway, Jr., Miss Nova Eisnor and Charles K. Everett and M. T. Mermey, of the Institute staff.

The final business session of the convention, on Saturday morning, heard reports of the association's several committees, and two excellent addresses by Claudius T. Murchison, president of The Cotton-Textile Institute, and E. A. Kincaid, economic adviser of the Federal Reserve Bank of Richmond, Va.

Dr. Murchison spoke impressively of prevailing economic conditions in the industry, refuting much of the criticism that has been directed at the price policies of the textile industry recently, though indicating the possibility of closer governmental scrutiny of this situation in the very near future. He reviewed prevailing forces tending toward inflation, and analyzed the possibilities of governmental and private efforts to avoid economic disaster.

Dr. Kincaid likewise spoke of current economic problems, citing unwarranted increases in wage structures as the greatest force toward a spiral of inflation, and urging unity among the several branches of the textile industry in meeting the problems of post-war days.

Several resolutions, in addition to the one referred to at the beginning of this report, were adopted. They included one in opposition to the marketing certificate plan of financing cotton loans, which declared that,

"We strongly oppose any congressional or administrative action which would have the effect of artificially increasing the price of cotton. We strongly oppose the enactment of legislation placing special taxes on cotton, the processing of cotton, or the sale of cotton products.

"We are opposed because it would in effect mean a very high sales tax on the commodity we are all striving to help. It would shift consumer preferences from cotton to many other products, and result in less employment in growing cotton, manufacturing cotton, and selling cotton goods; it would put an unfair burden on these products which are a necessity in every home in America from the humblest up.

"We strongly urge Congress to study this question carefully, to enact what measures it knows will be in the interest of the farmers and are fair. If such legislation should require additional funds, we urge Congress to continue its present policy and make the increase out of treasury revenue, which will spread the burden in the most equitable and fair manner."

◆◆◆

14th Annual Style Show at N. C. State Textile School

142 young women from 10 North Carolina colleges participated in the 14th annual style show at the textile school of N. C. State College in Raleigh on April 24. The costumes, designed and made by the girls from cloth designed and woven by students of the textile school, were unusually attractive. The 11 first prize winners are shown in the photograph below. The grand prize winner, Miss Emogene Shields, of Meredith College, in center of the group, wore a blue-and-white granite weave check model from cloth by J. W. Alexander and M. L. Crawford; the white was from a pique designed and woven by A. R. Gewehr and J. R. Scoggins.

Method to Figure Creeling Time

By Parker Meek

THE following information and calculations are given for figuring the time that a given creel of stock will run at a given percentage of efficiency on the drawing, roving and spinning processes in a textile plant. Figures apply to the processing of cotton, and cotton standards are used. Calculations apply equally to processing of rayon staple fiber and spun rayon, which is based on cotton standards.

The grain sliver to hank roving conversion table will prove quite useful to mill men. It may be clipped out, along with the rest of the article, and placed in a convenient location for reference.

Drawing

$$\frac{840 \times \text{Hk. Rov. in Creel} \times \text{Wt. Can} \times \text{Draft} \times 36}{\text{RPM} \times 3.1416 \times \text{Dia. Front Roll} \times 60} = \text{hours creel will run at 100 per cent efficiency}$$

Note: If weight of can is in ounces divide by 16 by placing 16 below the line in formula.

Example:

Dia. Calender Roll	= 2-inch
RPM Calender Roll	= 205
Grain Sliver	= 55 in creel; 55 delivered
Wt. Supply Can	= 10 lbs.
No. Deliveries	= 4 Del.
Ends Up	= 6 Ends
Per cent Efficiency	= 60.8

$$\frac{840 \times .0252 \times 60 \times 6 \times 36}{205 \times 3.1416 \times 2'' \times 60} = \text{3.55 Hours. creel will run at 100 per cent efficiency.}$$

3.55 Hours divided by 60.8 per cent = 5.84 hours. Creel will run at 60.8 per cent efficiency

Note: Hank Roving in creel is figured:
55 grs. × 6 ends up = 330 grs. in creel
330 grs. = .0252 Hank. Roving
Wt. of can is figured:
10 lbs. × 6 cans = 60 lbs.
Draft is figured:
330 grs. divided by 55 grs. = 6, or
.151 Hk. Rov. divided by .0252 Hk. Rov. = 6.
To check creeling time divide the weight of the supply package by the weight of the finished package and multiply by doffing time.

Slubbers

$$\frac{840 \times \text{Hk. Rov. in Creel} \times \text{Wt. Can} \times \text{Draft} \times 36}{\text{RPM} \times 3.1416 \times \text{Dia. Fr. Roll} \times 60} = \text{hours creel will run at 100 per cent efficiency.}$$

Note: If weight of can is in ounces divide by 16 by placing 16 below the line in formula.

Example:

Hank Roving Delivered	= 1.00 Hk.
Grain Sliver in Creel	= 55 grs.
Dia. Front Roller	= 1-inch
RPM Front Roller	= 185
Wt. Supply Can	= 14 lbs.
Per Cent Efficiency	= 73.6 per cent

$$\frac{840 \times .151 \times 14 \times 6.62 \times 36}{185 \times 3.1416 \times 1'' \times 60} = \text{12.1 hours. Creel will run at 100 per cent efficiency.}$$

12.1 divided by 73.6 per cent = 16.4 hrs. creel will run at 73.6 per cent efficiency.

Spinning

$$\frac{840 \times \text{Hk. Rov. in Creel} \times \text{Wt. S.P.} \times \text{Draft} \times 36 \times (1.00 - \text{Per Cent Contraction})}{\text{RPM} \times 3.1416 \times \text{Dia. Fr. Roll} \times 60} = \text{hours creel will run at 100 per cent efficiency}$$

Note: If weight of supply bobbin is in ounces, divide by 16 by placing 16 below the line in formula.

Example:

Yarn Number	= 11.00
Hank Rov. in Creel	= 1.00
Single or Double	= Single Roving
Wt. Supply Bobbin	= 1.56 lbs.
RPM Front Roller	= 180
Dia. Front Roller	= 1-inch
Per Cent Efficiency	= 97.0 Per Cent
Per Cent Contraction	= 4.0 Per Cent

$$\frac{840 \times 1.00 \times 1.56 \times 11 \times 36 \times .96}{180 \times 3.1416 \times \text{1-inch} \times 60} = \text{14.7 hrs. creel will run at 100 per cent}$$

14.7 hours divided by 97.0 per cent = 15.2 hrs. creel will run at 97.0 per cent efficiency

Note: If roving in creel is double figure:

$$\frac{840 \times 1.00 \times 1.56 \times 22 \times 36 \times 2 \times .96}{180 \times 3.1416 \times 1'' \times 60 \times 2} = \text{29.4 hrs. creel will run at 100 per cent efficiency.}$$

Note: When roving is double, draft is twice as much as when roving is single.

Grain Sliver to Hank Roving Table

Grain Sliver	Hank Roving	Grain Sliver	Hank Roving	Grain Sliver	Hank Roving	Grain Sliver	Hank Roving	Grain Sliver	Hank Roving	Grain Sliver	Hank Roving
10.	.833	19.	.438	28.	.297	37.	.225	46.	.181	58.	.144
10.5	.793	19.5	.427	28.5	.292	37.5	.222	46.5	.179	59.	.141
11.	.757	20.	.416	29.	.287	38.	.219	47.	.177	60.	.139
11.5	.724	20.5	.406	29.5	.282	38.5	.216	47.5	.175	61.	.137
12.	.694	21.	.397	30.	.278	39.	.214	48.	.174	62.	.134
12.5	.666	21.5	.387	30.5	.273	39.5	.211	48.5	.172	63.	.132
13.	.640	22.	.378	31.	.269	40.	.208	49.	.170	64.	.130
13.5	.617	22.5	.370	31.5	.264	40.5	.206	49.5	.168	65.	.128
14.	.595	23.	.362	32.	.260	41.	.203	50.	.167	66.	.126
14.5	.575	23.5	.355	32.5	.256	41.5	.201	50.5	.165	67.	.124
15.	.555	24.	.347	33.	.252	42.	.198	51.	.163	68.	.122
15.5	.537	24.5	.340	33.5	.249	42.5	.196	51.5	.162	69.	.121
16.	.521	25.	.333	34.	.245	43.	.194	52.	.160	70.	.119
16.5	.505	25.5	.327	34.5	.241	43.5	.192	53.	.157	71.	.117
17.	.490	26.	.320	35.	.238	44.	.189	54.	.154	72.	.116
17.5	.476	26.5	.314	35.5	.235	44.5	.187	55.	.151	73	.114
18.	.463	27.	.308	36.	.232	45.	.185	56.	.149	74.	.113
18.5	.450	27.5	.303	36.5	.228	45.5	.183	57.	.146	75.	.111

Formula: 7000 divided by grain sliver = X. X divided by 840 = hank roving.

Alabama Men Hear Strong Talk at Mobile Meeting

THE ALABAMA Cotton Manufacturers Association, meeting in Mobile, Ala., April 17-18 for the annual convention and outing, heard some strong talk from a member of Congress. Joe Starnes, congressman from Alabama and vice-chairman of the Dies Committee, pulled no punches when he told of labor's tremendous responsibility in the national defense program, and speaking with reference to the recent strikes, said that labor must clean its house of communists, backing up his statement with examples of actual strikes in plants on production of defense goods that have been led by men who are either self-admitted communists or who do not have the interests of the United States at heart.

Congressman Starnes depicted three types of strikes that have been called by labor leaders recently. (1) Jurisdictional strikes, where there is a stoppage of work because of two unions in the same plant striving for acceptance by management of only one; he termed this sort of strike "stupid". (2) Organized strikes; he termed this type of strike "racketeering". (3) Sabotage strikes.

He brought out forcibly that in the present emergency labor has more at stake than any other group; that labor has its Magna Carta in the Wagner Act and in the Walsh-Healey Act, but there are still strikes; and that he "cannot understand why labor should strike, especially in the national emergency". To this end he said that the President should act with swiftness to prevent strikes, and that *if* the President would act the strikes would be brought to an end.

ELECTION OF OFFICERS

Benjamin C. Russell, vice-president of Russell Manufacturing Company, Alexander City, Ala., was elected president of the Alabama association at the annual convention in Mobile, having formerly served at vice-president. **Joe L. Lanier** of West Point, Ga., president of Wehadkee Yarn Mills, Rock Mills, Ala., and the retiring president of the association, was elevated to chairman of the board of directors. Other officers elected were **J. Craig Smith,** Avondale Mills of Alabama as vice-president, **D. H. Morris, Jr.,** president of Geneva (Ala.) Cotton Mills, as treasurer, and **Dwight M. Wilhelm** of Montgomery, Ala., as secretary, re-elected.

Directors elected for three-year terms were **E. C. Forrest,** California Cotton Mills Company, Uniontown, Ala.; **Homer M. Carter,** Pepperell Manufacturing Company, Opelika, Ala.; and **E. A. Wells,** Bemis Bro. Bag Company, Talladega, Ala. **Thomas Cousins,** Dwight Manufacturing Company, Alabama City, Ala., was elected to fill out the unexpired term of **Allan Little,** also of Dwight, who has retired from service, and **George P. Haslam,** Standard-Coosa-Thatcher Company, Piedmont, Ala., was elected to fill out the term of **Roland H. Gray,** who has moved from the state.

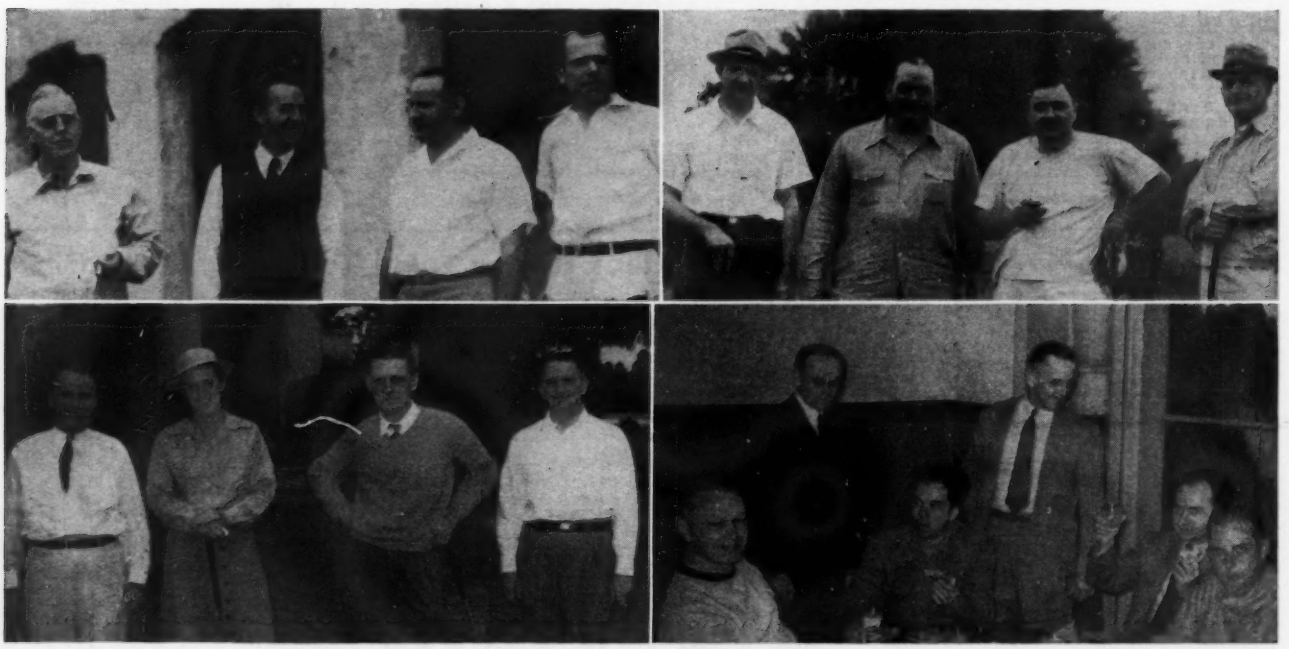
Advocates Labor Legislation

Congressman Starnes pointed out the need for legislation that would remove present tendencies to slow down or curtail defense work, and advocated congressional legislative action on four points: (1) The outlawing of jurisdictional strikes (2) An act to make unlawful the importation of strikers across state lines (3) A strict accounting for union funds and (4) The establishment of a "cooling period" before a strike can be called.

Present Activity Not Assured

Claudius T. Murchison, president of the Cotton-Textile Institute, spoke briefly at one of the business sessions and touched on the several measures before congress at this time that affect all branches of the textile industry and the cotton farmer. He said that while there is little danger of some of them passing, it is still necessary for the industry and its allied interests to combat them, and this is being done through a program established by the Institute and the National Cotton Council, thereby presenting a unified front of all interests.

Dr. Murchison "would not gamble" on the same amount of activity in textiles for longer than a year, and he cautioned the manufacturers to watch their step because orders for eight and ten months ahead will be of no avail when the crash comes, "and", he said,



Snapshots by P. G. Wear of Penick & Ford, Ltd., and John C. Fonville of "Cotton"

Showing the lighter side at Mobile. Top row, left to right: **Edmund F. Cook,** of West Point Foundry & Machine Works; **Joe L. Lanier** and **Benj. C. Russell,** old and new association presidents; and **J. Craig Smith,** of Avondale. Next group: **Claude Elrod,** of Boaz; **A. A. Hardin** and **Charles G. Stover,** of Corn Products Sales Co.; and **Thomas Cousins,** general manager, Dwight Mfg. Co. Second row: **Joe L. Jennings,** of Fairfax; **Miss Dorothy Kirby** of Atlanta; **Homer M. Carter,** of Pepperell; **Louis Kirby** of Calco. Second group, at 19th hole: **S. W. Quisenberry, Howard A. Horan, John C. Fonville, W. J. Kirby,** Dorothy's father; **John C. Cook,** of "Cotton", and **E. G. Merritt.**

Prominent figures at Mobile: Left to right, **E. P. Guinane,** of the FBI, speaker at the first morning session; **Joe L. Lanier,** retiring president of the association; **W. M. McLaurine,** secretary, American Cotton Mfrs. Asso.; **Francis Lynch,** president of Saratoga Victory Mills; **S. A. Steere,** general manager of Goodyear's cotton mills; and **D. H. Morris, Jr.,** president of Geneva Cotton Mills.

"with the rising national debt and the enormous spending, if we escape inflation it will be the biggest political and economical triumph yet." He does not look for governmental price control *as yet,* that is, until inflation is actually here, and it was his opinion that talk from Washington on price control and priorities at this time is purely for the psychological effect.

Dr. Murchison was asked for advice as to how the industry might combat the Market Certificate Plan, and he suggested that the time is not yet ripe, but that if the bill is reported favorably from the committee, then it would be advisable to contact your congressman.

President's Annual Address

At the first business session, Joe L. Lanier of the West Point (Ga.) Mfg. Co., and president of the Alabama association, in the president's annual address, traced the events in Europe and showed how America is being drawn closer and closer to war, and that the task of industry at this time is to supply materials for defense purposes. Reporting on the activities of the association for the past year, he advised of the part that the association had played in bringing about an experience rating under the state unemployment compensation law, and of the establishment of a practical discussion group composed of the operating men of the Alabama mills. He also told of the establishment of a group consisting of the office men in the various plants.

In closing Mr. Lanier said, "The association continues to have the support of the mills and the general good will of the public. In a sense of unity, it would seem that the time is upon us when we must act in unified accord and present in a logical manner for pertinent facts of our industry and show our side of the problems."

FBI in Industry

E. P. Guinane, special agent of the Federal Bureau of Investigation, spoke on the FBI's part in combatting sabotage and espionage work in the United States. He said that already many persons connected with fifth-column activity in this country have been identified, but requested that the public report any activities of sabotage or espionage immediately to the nearest office of the FBI or to the local police. Of interest to the plant manager in combatting sabotage, Mr. Guinane said, is the book "Protection of Plant Facilities", which may be secured directly from the FBI at Washington.

The Alabama meeting consisted of three business sessions during the morning and luncheon hours, and of golf, boating, visits to the famous Bellingrath gardens, and other forms of recreation in the afternoons. Joe L. Lanier, president, and Dwight M. Willhelm, secretary, were in charge of affairs. [See page 104 for golf winners.]

Hugh M. Comer, toastmaster *rara avis,* furnished entertainment at the annual banquet on Thursday night, but came in a close second in the style-show between him and S. W. Quisenberry of DuPont, the latter winning by popular applause (and boos), though Comer entertained the idea that the "rougher element" elected his competitor. The main speaker for the banquet was the Hon. Hugh M. Dixon, governor of Alabama, whose address was on the part that Alabama is playing and can play in the national defense program.

INDUSTRIAL AND PUBLIC RELATIONS

AT THE annual meeting of the Alabama Cotton Manufacturers Association, W. M. McLaurine, secretary of the American Cotton Manufacturers Association, spoke on management in the defense program from an industrial and public relations standpoint. Pertinent statements from Mr. McLaurine's address follow:

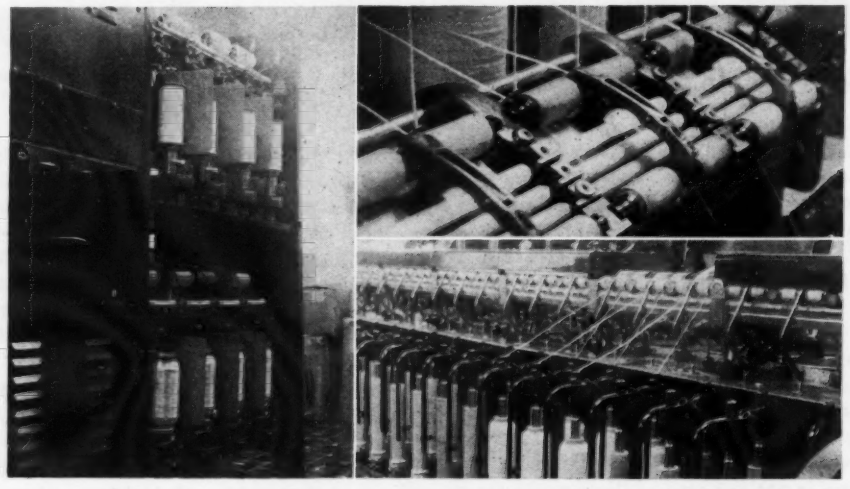
"One of the greatest problems of management in industry, in the defense program and out, is to seek, secure and maintain a sane and satisfactory industrial relations program * * * and people who work therein can devote their energies to national defense and not be disturbed or disrupted by conflicting industrial policies. . . . No emergency ever becomes so severe or so important that the human elements, the traits of personality can be forgotten. Human personality is the most sacred thing in the world regardless of economic conflicts.

"* * * Public relations rest upon sane and sensible industrial relations. . . . Welfare work is only a part of industrial relations. . . . In our public relations approach, we must stir the emotions and imaginations of the people with the positive proof of the fact that we have an industrial philosophy in keeping with their expectations of us. . . . Management * * * and labor failed to recognize that present day conditions are different and demand a different approach. Each party is trying to conduct business as if conditions are normal and all seem to have overlooked the national emergency in their selfish conflicts. . . .

"The breach in philosophies between management and labor is too great for either to understand and cooperate with the other. There should be no breach at any time between management and labor. Each should thoroughly and tolerantly understand the other. Management is in a position of authority and power, hence it cannot occupy a neutral position. It will be honored and respected and followed or it will be hated and challenged in industrial conflict."

Just before the banquet at Mobile: Left to right, **Howard A. Horan,** of Penick & Ford; **D. H. Morris, Jr.,** of Geneva Cotton Mills; **E. G. Merritt,** of Southern Belting Co.; **John C. Fonville,** of **"Cotton"**; **C. W. Mizell,** of Opp, **Earle Mauldin,** of Textile World; **Claudius Murchison,** president of Cotton-Textile Institute; and **S. W. Quisenberry,** of duPont, who won the "best-dressed man" contest from Hugh Comer, and who is seen ordering more ice.

Textile Week at Greenville



TEXTILE WEEK in Greenville, S. C., came March 31-April 5, and at its close, had given the industry its best textile exhibition, and a series of related events that made the occasion another unqualified success.

The chief attraction was, of course, the 14th Southern Textile Exposition, in Textile Hall. It presented more than 200 exhibits of textile machinery, supplies, equipment and services, covering practically the entire range of equipment and materials for the cotton-textile industry and its auxiliary functions. The attendance was by far the best in the history of the Show.

Circumstances gave this year's Show particularly effective timing, with practically every unit in the industry enjoying full and overtime operation, putting the financial and operating executives in a receptive attitude for considering new and improved equipment and supplies. The result was practically unanimous satisfaction among the exhibitors as to the reception accorded their display of wares, and the opportunity for discussing subjects of mutual interest with customers and prospects among the mill men.

In some quarters, apprehension that the extreme activity in the industry might tend to reduce attendance at the show had been expressed, but there was no dimunition apparent. To the contrary, the effect seemed to be to spread the mill attendance more generally throughout the week instead of its being concentrated within two or three big days. Usually a sort of "tapering-off" day, Saturday turned out to be unusually well-attended this year, presumably by mill men who desired to remain at thir pobs during the greater part of the week and take in the Show on Saturday. In past years, some groups of mill men had become accustomed to spending several days at the Exposition, whereas this year it was noticeable that many were in Greenville for only one day, but this only meant a more concentrated attention to the show. The "shuttle sleeper" service operated by the Southern Railway into Greenville during the week, with Pullmans emanating nightly from Greensboro, N. C., on the north and Atlanta, Ga., on the south aided greatly in convenience and relieved the congested hotel situation in Greenville. Several mill organizations in the Georgia-Alabama area, for example, sent their men in shifts, several making the trip from Atlanta to Greenville on the local sleeper each night, and returning the following evening. The same schedule prevailed from Greensboro on the north. One large Georgia group had 112 men attend the show in this manner, each group for one day away from the mills.

The earlier opening hour of 9:30 A.M., instituted at the 1939 Show, prevailed this year and proved a great advantage to early arrivals; and the earlier closing hour of 9:00 P.M., also continued, was a boon to exhibitors, who unanimously approved this opportunity for more rest and recreation during the evenings, and no one could be found who felt that any worthwhile Show visitors were inconvenienced by the earlier closing.

As usual, a series of more or less formal affairs were held during the week in conjunction with the Exposition. The regular meeting of the Greenville Rotary Club on Tuesday, April 1, with a special program, gave visiting Rotarians an opportunity to make up their attendance. On Wednesday, the regular Lowell Textile Institute Alumni dinner was held, with President Charles H. Eames as the speaker; and on Friday, alumni of the Philadelphia Textile School met with M. E. Heard, dean of that institution.

On Wednesday evening, under the sponsorship of a group of Greenville ladies, a successful "Bundles for Britain" Ball was held at the Poinsett Hotel, largely attended by exhibitors' representatives and visiting mill men. On Thursday there was a joint meeting of the textile division and the Greenville section of the American Society of Mechanical Engineers, and on Friday, a joint luncheon for members of the Southern Textile Association, Textile Operating Executives of Georgia, and Alabama Textile Operating Executives, was held, with Marshall Dilling, executive secretary of the Southern Textile Association as toastmaster, and Hugh M. Comer, executive vice-president of Avondale Mills, as the speaker.

Efforts to report in detail on the exhibits at an Exposition like the Greenville Show always end in a sense of confusion, incompleteness, and frustration. The scope is so great, and so extensive and diversified, that space limitations are hampering. Furthermore, in the March of Textile Progress, and of related lines, there is never any consolidated movement along a solid front. Standard, accepted equip-

The "**Cotton**" snapshots above, and elsewhere, show only a few of the thousands of faces seen at Greenville during the week of the Textile Show. A ruling of the Exposition management directed against the use of our flashbulbs inside Textile Hall prevented our showing these people against the appropriate background of some of the exhibits. However, the management of the Poinsett Hotel were more generous, and most of these pictures were made in the dining room there. Above are seen:

Top row: **H. M. Bacon** and **William Morgan**, of Dayton Rubber; **T. A. Francis**, of U S Bobbin & Shuttle, and **J. C. Cowan, Jr.**, vice-president of Burlington Mills Corp.; and **Frank U. Naughton**, engineer, and **H. M. Carroll**, advertising manager, of Hyatt Bearings Division of General Motors.

Second row: Three vice-presidents—**Robert W. Philip** of "**Cotton**" between **Thomas West, Jr.**, and **Erwin N. Darrin** of Draper Corp.; **S. W. Quisenberry**, of duPont; and **Mrs. R. M. Fraser**, of Buenos Aires, Argentina, with **George S. Elliott**, of The Dallas Mfg. Co., Huntsville, Ala.

Third row: **L. E. Allen**, western manager of "**Cotton**", and **Harry N. Baum**, advertising manager, Fairbanks, Morse & Co.; **W. C. Dodson** and **Joe Ballentine** of Smith Drum & Co.; and **Robert Leeson**, president, and **E. O. Smith**, vice-president, Universal Winding Co.

Fourth row: **Mrs. Amber Batson**, manager of the Poinsett dining room, speaking to **J. Carlile Martin** and **George W. Murphy**, of H. & B. American Machine Co.; **B. S. Phettephace**, of Southern Franklin Process, receiving the check; **John Richardson**, of Crompton & Knowles and **W. T. Osteen**, of Staley, very happy about something.

ment is displayed from year to year, without major changes, along with "the new" in design and detail. Furthermore, a chief value of any occasion of this kind is in the intangible sphere of contact, discussion and association. The appended report, therefore, makes no pretense of covering every single item displayed, and was written as the observations of a trained observer on at least *some* of the *newer* things seen in a careful tour of the exhibits.

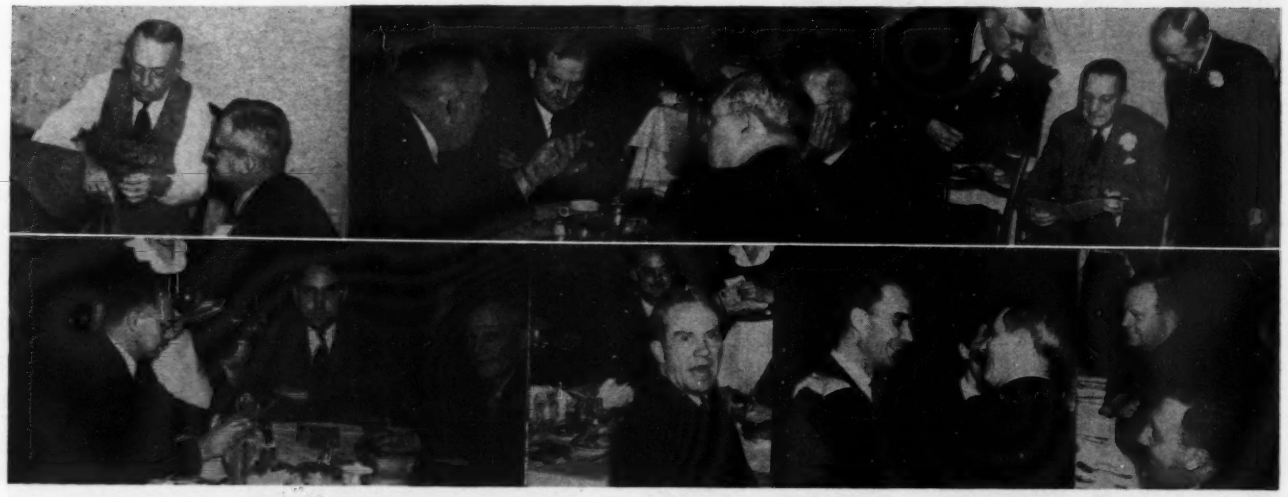
CARDS. Adapted to processing of staple fibers; card sides, cylinder, doffer, doffer comb and coiler assembly similar to cotton cards, with special long-nose feed plate. Rollers or workers replace flats and are covered with special wire. Cards available new or attachments may be applied to existing cards. Electric neutralizer for removing static on all types of machines.

DRAWING and COMBING. Bi-coil drawing frame to give double production, feeding 8 slivers with draft of 4 instead of 6; twin webs emerge, are separated by double trumpet and coiled in one can, from which twin sliver is fed to slubber. Model H comber streamlined, 25.9 per cent shorter than Model D-4, easy to clean, laps rest upon two creel rollers, highly polished lap plate suspended from pins, adjustable feed roll pressure, redesigned jaws on cushion plate and nipper knife, front detaching rolls smooth-surfaced metallic positively driven.

ROVING. Five-roll Hi-draft with scroll condenser, weighting for 2-3-4th rolls and conveniently oiled, new gearing unit easy to reach, change gears front and back, chain drive in differential to bobbin shaft. Super-draft roving equipped to run split sliver drawing (see above), lifting roll for bi-coil sliver, new unit weighting system. Model L-S controlled-draft roving frame for long staple fibers, featuring redesigned pressures, roll spacings, roll sizes, 4 bottom rolls and 3 top rolls, spring pressure weighting.

SPINNING. Hi-draft spinning with ball-bearing top roll to handle longer fibers, double aprons, frame at show geared for high draft. Long draft spinning for rayon, 4-roll system, by changing saddle and 3rd top roll converted to run 3-inch rayon staple, frame running one side on cotton other on rayon, making same number on each side. Spinning frame with controlled draft assembly, Model L-S and Model Z, former for manufacture of combed yarns, latter for artificial fibers and blends of staples up to 3-inch, Model Z single apron and 4 top rolls.

WARPERS, BEAMERS. Spindle driven warper for rayon, 300 to 600 yards per minute, presser roll controlled through snubbers, has beam doff mechanism, spring expansion comb on back, automatic counter clock, remote



More informal snapshots by "**Cotton**" at Greenville. Top row: **Hargraves Gill**, president, Westboro Weaving Co., and **Hugh S. Clarke**, superintendent, Texas Textile Mills, Dallas, Texas, trying, in an unposed photograph, to solve the problem of the P. & F. pencil trick; next group shows **S. A. Steere**, general manager of Goodyear's cotton mills, at breakfast with three of his superintendents, **C. W. Young**, **L. S. Hall**, and **G. I. Parmenter**; the third group shows **Dave O'Connor**, vice president of Penick & Ford, Ltd., Inc., admiring a photograph of the grandson of **Howard Horan** (right), with **Hugh Clarke** also looking on.

Second row: **Russell A. Wells**, manager, Bemis Bro. Bag Co., Talladega, Ala., with **A. B. Moss, Jr.**, of Barnes Textile Associates, and **H. P. Claussen**, of Bemis. The surprised gentleman shown next is **Harold Wing** of Crompton & Knowles; next **A. B. Edge, Jr.**, vice-president of Callaway Mills, is seen greeting **Hugh M. Comer**, and the next two men are **Robbins Lowe** and **Robert Lindsay** of Saco-Lowell Shops.

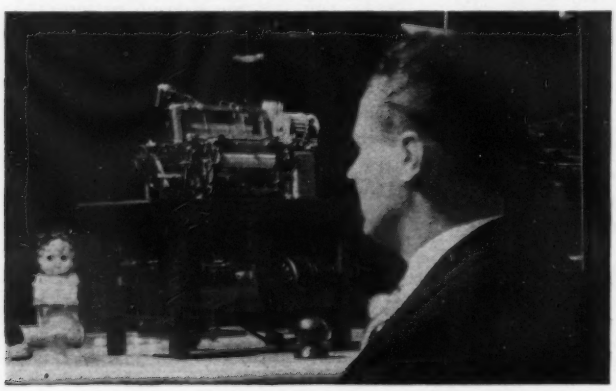
control with push button stations on both sides, magnetic brake on motor. Beaming machine for all fibers, direct beam drive, warping speed control, yarn roller may be swung away to tie ends, powerful brakes, speed indicator, enclosed electrical parts, safety devices.

WINDERS. Traveling spindle winder with bobbin box hoist to fill hopper, winding various type packages; hoist saves operatives' time and effort; winder also makes package for knitting. Model 102 improved, conditioning attachment, adjustable roll speed drive for various percentage moisture pick-up, nickel plated drip pans, winding 2¼ and 3¼-inch traverse cheese packages. Model 86 nylon sizing machine, will wind both single and dual packages, oscillating size roll to prevent wear, designed so can be converted to Model 75-C coner—later for nylon, rayon or silk, dampner tension below moistener, latest type straight draw moistener of stainless steel, improved drop wire and cone shell, winding from sizing packages and regular spools.

FILLING WINDERS. Automatic traveling spindle filling winder, fully automatic, driven by motor on each spindle, double throw cam for twice speed of stroke in one direction than other, full package stop motion, available in several lengths, follows design of traveling spindle cone and tube winders. Loom bobbin winder, 48 spindles on 2½-inch centers, 4200 r.p.m., supplied from large cones or cheeses, doffed manually as on spinning, automatically stops. Filling winder for winding paper filling quills used in rugs and automobile seat covers, etc. Automatic high speed bobbin winder, simplified No. 90 plus electrically-controlled automatic doffer, all winding spindles on one side, 48 spindles, positively driven spindles, traverse mechanism for each spindle operated by rotating cam, diameter of bobbin controlled, spindle speed 5000 r.p.m., doffs and inserts empty quill automatically. Automatic filling winder, broken end stops single spindle, fully automatic, suitable for all classes of yarn wound on bobbins or pirns, independent units driven by friction disc, thread guide device, enclosed gearing.

RAYON THROWING. High-speed double deck re-draw machine for rayon, compensator to prevent kinking and to give uniform tension, ball-bearing re-draw bracket, can set for size spool, automatic knock-off; also, improved twister for rayon and silk, face drive, bobbin and spindle operate together by cone clutch, no backlash. Up-twister with improved unit control, all gears in one unit, motor drive improved, motor plate with parallel motion, die cast fingers, with stainless steel and fiber inserts for replacement, improved spindle swing, self-aligning bearings on take-up shaft, separator swings out while cleaning; Duplex doubler-twister, ball-bearing unit control, twist and traverse gears in same end of machine, new motor drive. Model 111 twister, heavier than Model 110, for packages of 1½ and 2 pounds, 2-inches wider between spindles, double clock spring type belt take-up, heavy bobbin hangers with adjustable and replaceable bushings, twist range 1.4 to 71 turns either hand, may be equipped to wind head or headless packages.

TWISTERS. Model G wet twister, reversible tension device below spindle



• This scale model of Draper's Model E loom attracted considerable attention at the Southern Textile Exposition. It was built by Louis Phillippe Authier of Draper Corporation after several years' work. All of the parts had to be filed and hand-tooled. It is approximately one-eleventh the size of the regular loom and all parts are about to scale, except the shuttle which had to be slightly larger to give it enough weight to pick properly. The amazing part of it all was that it was running and making cloth. More than one boss weaver had to say "Well, I'll be——" when the tiny battery operated and the loom changed filling. Mr. Authier is shown in the picture with the product of his several years' hobby.

rail, machine low for convenience of operator, sturdy cross-shaft and lifter rod, traversing thread board, new lifting device for wetting rolls, adjustable drain rod, new type builder, water level control, helical cut gears on jack shaft and cylinder, electric stop motion for safety. Model 4 twister, heavy samsons, spindle rails and girts, ring-rail supported on assembly with large bearings, each section of rail fastened to brackets connected to sliding member to reduce vibration and insulated from other sections, preadjusted coil spring weighting, cylinder and anti-friction bearings.

LOOMS. 82-inch W-3 convertible with filling mixer, possible to weave automatically a single pick from 3, 4, or 5 shuttles consecutively, automatic let-off which is self-adjusting with no change in weights necessary from beginning to end of warp and requiring no friction bands or chains; W-3 available in 4x4, non-automatic, pick and pick, or, 4x1 box, automatic, or, convertible from 4x1 automatic to 4x4 non-automatic, or, convertible with automatic filling mixer 4x2 box. Model X-2 for same fabric range as regular Model X, strengthened parts, adjustable check and patented formed shuttle box; Model XU for medium duck, built to run 20 per cent faster than previous duck looms, new arrangement of take-up, large drag rolls located above warp line to accommodate 26-inch diameter warp beam; Model XP to replace Modified D, higher speeds, frame work 241 pounds heavier than Modified D, reinforced hopper stand, stronger take-up, for narrow sheetings and drills up to light duck.

FILLING CONDITIONERS. Conditioner with Lucite apron which is lighter in weight, machine equipped with hopper and is enclosed for cleanliness. Twist-setter improved with Micarta parts in hood, sprockets and aprons, shortened to conserve space; another machine for yarn conditioning using no aprons or moving parts, of stainless steel requiring floor area 3x4 feet, fed by apron or chute.

CLOTH ROOM, STRIPPERS. Duplex sewing and winding machine, will make rolls of cloth as large as 38 inches, heavy duty clutch and powerful brake, sewing machine head faster; inspecting machine with electronic control for operator's convenience. Type K bobbin stripper now allows considerable range in speed control, oscillating quill guard, high pressure lubrication on main bearings, solenoid brake on bobbin box hoist.

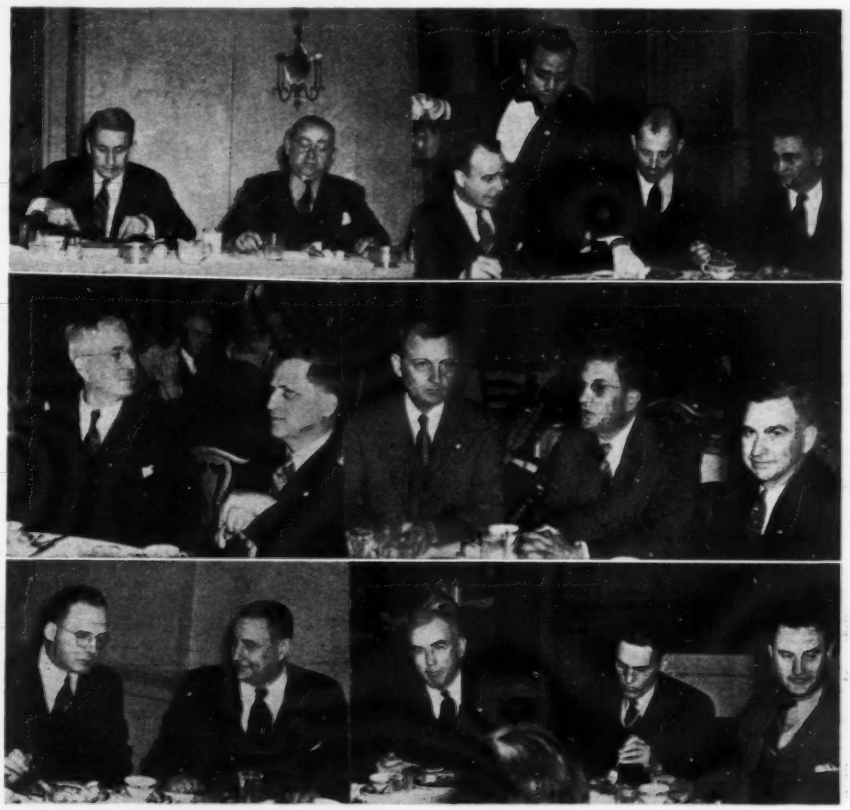
SEWING MACHINES. Class 231, high speed, quiet, drop feed and triple hinged presser foot, shape of bed handles variety of work; Class 241, automatic lubrication, higher speed, push button regulator for length of stitch, roller bearings, adjustable feed; Class 400-W, double rotary thread take-up, threading facilitated, anti-friction bearings, automatic hook lubrication, thread shearing finger. Class A, two-thread machine gives narrow finish, devices for rolling the fabric within the over-edge stitches, high speed.

DYEING, FINISHING. Stroboscope for printing machine, permits inspection of pattern register up to 500 yards per minute. Heavy type dye padder with pneumatic loading apparatus to secure uniform pressure, direct couple variable speed drive, heavy rubber covered rolls; cloth guiders with electric eye to keep fabric centered in any type finishing machine. Beam and package dyeing machine for multiple beam dyeing of either 1, 2, 3, or 4 beams, beams in separate kier but same bath, low liquor ratio, stainless steel, automatic control of both pressure and volume; package dryer with combination features of blower and oven type, dries in 2¼ hours, separated packages exposing total area, electrical control may be set for percentage of moisture or bone dry state. De-twisting machine for removing the twist from goods in rope as they come from wet processes, compact

The Joint Association Lunch on Friday

ONE FEATURE EVENT of Textile Week in Greenville was the luncheon held on Friday, April 4, in compliment to the Southern Textile Association, which originally sponsored the exposition, and the Textile Operating Executives of Georgia and the Alabama Textile Operating Executives, similar organizations formed within more recent years. Marshall Dilling, executive secretary of the Southern Textile Association, served as toastmaster; representatives of the three associations were introduced, as well as members of the exhibitors' committee which promoted the formation of the Exposition.

Hugh M. Comer, executive vice-president, Avondale Mills, Sylacauga, Ala., was the luncheon speaker, relating some of his experiences on his recent seven-week trip to South America.



These snapshots by "Cotton" show some of those at the asociation luncheon on Friday. Top row, left to right: **Hugh Comer**, giving a demonstration of how he ate beef in the Argentine; **Frank K. Petrea**, of Talladega, Ala., general chairman of the Alabama group; **Tom Lawson**, of Trion (Ga.) Co.; **Herbert Raiford Gaffney**, of Steel Heddle Mfg. Co.; and **R. P. Hardeman**, of The Trion Co.

Second row: **E. H. Rogers**, agent, and **Stephen C. Hale**, chief engineer, of Fulton Bag & Cotton Mills; **T. W. Mullen**, superintendent, Rosemary (N. C.) Mfg. Co.; **W. H. Gibson, Jr.**, general superintendent, Martha Mills, Thomaston, Ga.; and **Virgil E. McDowell**, Rosemary Mfg. Co. Messrs. Mullen and Gibson are past presidents of the Southern Textile Association.

Third row: **T. M. Forbes**, secretary, Cotton Mfrs. Ass'n of Ga., with **C. Robert Mitchell**, of J. E. Rhoads & Sons. The other group includes **A. H. Cottingham**, general manager, Victor-Monaghan Co., and **W. L. Steele**, with a visitor between them.

and easily controlled, use ahead of scutcher or other machine for opening cloth.

POWER TRANSMISSION. Variable speed drive for spinning frame, regulated by handwheel to set spindle speed, helpful when changing numbers or when spinning running poor, change in few seconds. Alternating current motor for N. E. M. A. standards, nylon insulation, bearing cannot be over-lubricated. Piston type hydraulic control to synchronize any two machines or to control speed automatically; light series variable speed motor pulley. Alternating current adjustable speed drive, push button operation, overload protection, speed maintained with load variations. Card flat chain, close joint tolerance, cadmium-plating, for any make card. Alligator connector for v-belts, install belts without moving shafting. Vari-pitch sheaves with speed range variation from 15 to 100 per cent per sheave, uses special wide belt. Air circuit breaker for individual power circuits, can inspect breaker in jiffy, interchangeable for working on old breaker. Manually operated motor starter, magnetic motor starters with ball-bearing suspended magnet, ac. contactors.

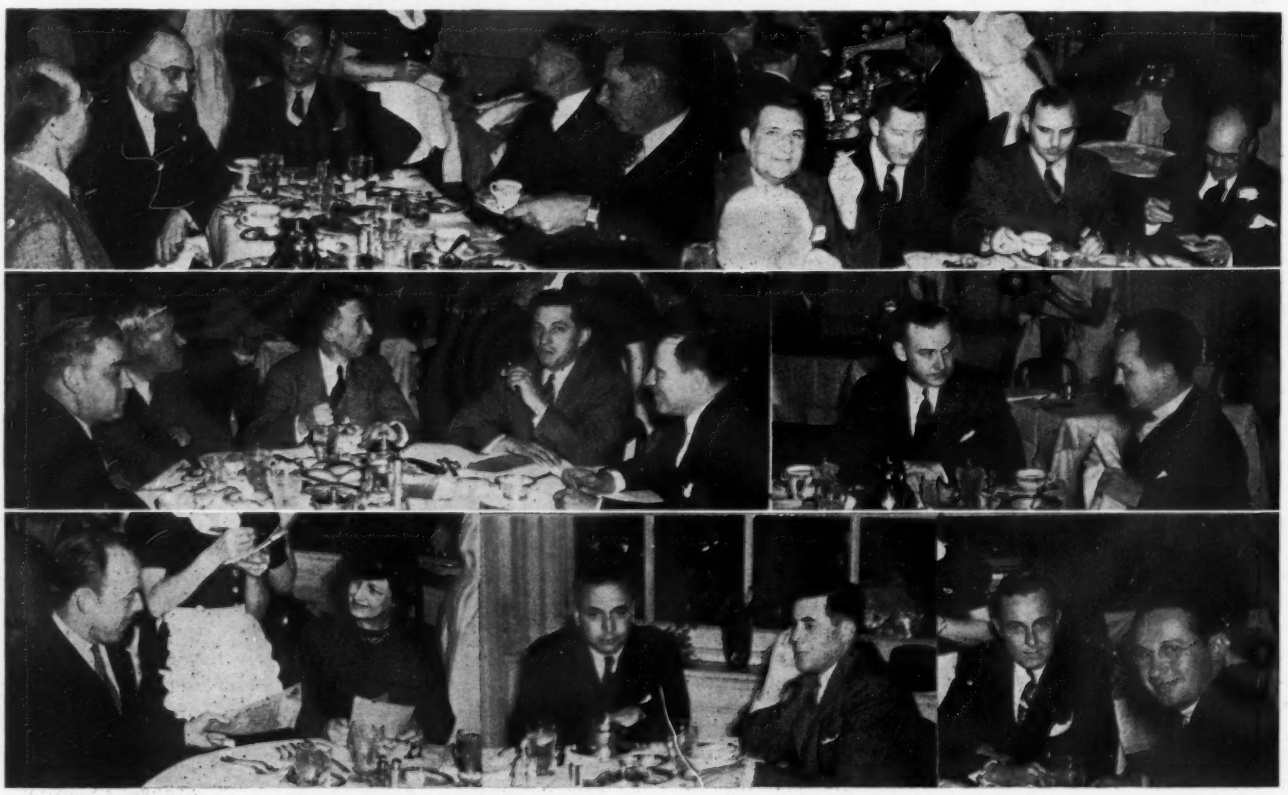
FOR MASTER MECHANIC. Bi-metallic friction for clutches where conditions are severe, maintains original coefficient of friction. Rotary pressure joint with replaceable wearing plate. Valve with silicon-bronze stem material for all-bronze and bronze-mounted valves; cast steel valve for use at 1500 pounds steam pressure at 1100 degrees F. New finish for bronze valves, giving even color inside and out of body casting, denser outer structure of metal, less tarnishing. Socketed flat head cap screws, socket bar screws. Folding saw-horse brackets. Progressive lubricating system for textile machines, providing delivery of pre-determined quantity of lubricant to each of a number of bearings from one central point. Roller bearing mandrel unit for printing machine; ball-bearing tape tension pulleys for spinning and twisters; mechani-seal ball-bearings prelubricated for life. Treadle roll with ball-bearings operating on set of harness.

SUPPLIES (Drafting Machines). Spinning ring with angle top for easier starting, angle side-wall, to prevent traveler drag; self-oiling traveler twister rings. Worsted cot, and synthetic rubber seamless apron, not affected by oil. Acotex seamless, nonstretching aprons. Jet black Etartnep finish traveler, reduces frictional contact, rust-resisting to high degree. Steel-end paper-tube barrel spools for shipping, storage, redrawing, transfer, etc.

LOOM SUPPLIES. New picker with equal amount of leather on all sides of hole, can be used interchangeably for right or left side of loom. Rubber-and-fabric picker with re-designed oval hole for shuttle point. Picker for rayon looms, rounded corners, resilient rubber. Picker with head and back joined by steel strap, replace head but use strap and back again; rayon weaving temple rolls of thermoplastic compound. Re-designed shuttle spring with double grip bolt, cannot cut reed, remains tight; rust proof steel reed and rust proof heddles. Finish on harness frame, double shellacked and buffed. Electric stop motion without any moving parts.

LIGHTING. Fluorescent and incandescent lamps for general and local installations. New 65 watt size, and other sizes from 6 to 100 watts. General improved line of fluorescents. Improved types of fixtures for fluorescent lamps. 100 watt RLM Mazda F twin lamp reflector.

AIR CONDITIONING. Standardized Air-Changer, unit built into building especially for Exposition, maintaining 74 degrees temperature and 60 per cent relative humidity; in conjunction with Air-Changer electromatic air filter removes soot, smoke and dust; improved



People attending the Textile Show in Greenville didn't eat all the time, but the dining room was the best place to catch them in repose. These "**Cotton**" snapshots show: Top row, at left, some of the Fafnir Bearing Company men; and, at right, some of the National Oil Products crowd, with **George H. Small** attending to the check.

Second row: Group at left shows some of the Houghton men; right, **W. B. Tucker**, of Armstrong Cork, and **John C. Cook**, business manager of "**Cotton**".

Third row: **Richard P. Smith**, promotion manager of "**Cotton**", with **Mrs. W. J. Rooke**; **Henry McD. Tichenor**, president of Walton Cotton Mills, and **W. E. Blake** of Boston; **Fuller E. Callaway, Jr.**, president of Callaway Mills, and **F. W. Howe, Jr.**, of Crompton & Knowles.

Ralph Chisholm, advertising manager, and **J. W. Stribling,** Atlanta agent, Universal Winding Co., were caught in this "**Cotton**" snapshot trying to get a good-natured Greenville cop to take them away from the Hall to a nice, quiet jail.

R. C. Bradbury and **F. L. Gemmer,** of Aluminum Company of America, were caught at the "short-order" stand outside Textile Hall while taking on some milk in a hurry so they could return to the exhibit and explain the aluminum situation to visitors.

temperature and humidity control in self contained unit; Turbo-matic self-cleaning humidifiers. Increased capacity Humiduct, applying electro-static air-cleaner, increased flexibility of drive by v-belts to meet changing conditions, grouped controls in one cabinet with aspirator fan to draw room air over control element, week-end operation feature, high limit safety device to cut off and start up automatically. Evaporative ventilating and cooling system to provide air change and ventilation without disturbing the percentage of relative humidity. Atomizer type humidifier operating under low pressure using one cubic foot air per minute per head, will not wet down, controls for system. Electro-Matic air filter for collecting smoke, soot and dust electrically; recorder to show efficiency of filter. Precipitron for the electrostatic air cleaning in textile mills. Rotary vaporizer unit, consisting of fan unit, lint-free motor, vaporizer section, mixing chamber and distributing supply air duct for maintaining relative humidity.

CONTROL INSTRUMENTS. Slasher control instruments, size box temperature and level, cylinder temperature, machine speed control through Moist-O-Graph. Examples of pneumatic loading, pressure control on squeeze and impregnation rolls. Fulscope for use on dyeing machines, setting to run required time and at predetermined temperature, starts when process temperature is reached; Flexotimer, time cycle controller for package dyeing machines. Moisture content control for slashers, speed control motor regulates speed at which material passes over drying cylinders, indicates and records moisture content in terms of percentage of regain. Automatic control of dyeing operation, by Dyemaster, controlling entire dyeing operation. Modified Ostwald viscosimeter for determining viscosity within very close ranges. Accelerated testing unit for comparing color-fastness of dyes.

NON-MILL. Washfountains operated by treadle, circular so several persons may wash at once. Automatic floor scrubbing machines. Combination floor scrubber-drier. Calculating machine that will not make errors on decimals. AA-1 adding-calculator for office. Elevating telescopic tilting truck to handle bales, goods, etc.

Inflation Is on the Way

(*Continued from page* 64)

labor union officials are far more interested in promoting the growth and financial power of their organizations than in helping the United States build ships, guns or tanks. It is certainly not in the public interest that purely selfish groups, squabbling over their own purposes, should be allowed to tie up a national effort involving 130 million people.

Congress and the Administration have got to do something about this strike situation and the inflationary dangers that accompany it, and something must be done soon. If it is done soon enough, we may be able to establish a national policy of labor peace for the duration of the emergency. If it isn't done soon enough, it may take almost a small civil war to straighten things out, but the overwhelming majority of the people in the country are behind the preparedness program and when they get sufficiently aroused they are not going to let strikes stand in the way of it. We went through much the same thing in the First World War. The Administration tried to handle labor by giving it everything it asked for; and that didn't work—it could always ask for more. Finally, it became necessary to get tough, and in several instances working men were given their choice between factories and the army.

We may have to go even further than that this time and conscript labor, as well as soldiers or manufacturing plants. The President now has the power to take over manufacturing plants whose managements will not cooperate with the Government for defense. If the management of Allis-Chalmers had shut down its plants to enforce a demand for an open shop, and had kept these plants shut down six weeks fighting for such an agreement, it is quite probable that the President would have exercised his authority. However, when the employees did exactly the same thing trying to enforce some of their demands, there was apparently little the President could do about it. Apparently that strike was called illegally as a result of a fraudulent election, but it tied up the plants and lasted just as long and did just as much harm as if it had been legal.

When we remember that a great many of these labor disturbances are undoubtely caused by fomentation due to agents of our enemies, it becomes all the more important to establish some definite labor policy to be pursued for the duration of the emergency.

One American President once remarked that no one has *any* right at *any* time to strike against the *public safety*. We might remember that today.

A detailed description of textile mill practice in Argentina will appear in the June issue of "Cotton". It was written by George W. Murphy, Jr., who went to the Argentine two years ago in a position with S. A. Fabrica Argentina de Alpargatas; was brought to "Cotton" by R. M. Fraser, their associate manager, on his visit to the United States this Spring. Watch for it!

Why Write an Order

(*If It Isn't Right*)

The author points out some ways to save both mills and suppliers time and money when placing orders

WHAT is the excuse for writing an order? The only answer to this question seems to be that someone in the plant needs, or will need, some one specific thing for some one job that must be done and done right if the wheels are to keep rolling smoothly. Whether or not the material bought is the best thing for the price is squarely up to the purchasing agent, but does not concern us in this discussion. We are concerned in this discussion, though, with whether or not you get exactly what you have to have and exactly what you sent your order for.

If we want to get exactly what we want there is only one main point to be covered—the order must be written so the supplier knows from the description you give him exactly what is needed. We all know that this ideal is not often reached, and the ensuing correspondence is one of the main reasons for stenographers. Many of the letters starting "we find that we must have more information before entering your order" are not an accusation of the man releasing the order, but some of them are.

Make Specifications Clear

Since most of us work hard all day staying out of the dog-house on other things, we might just as well add this question of poor specification to the list. It is one of the main things that will slow up shipments, cause wrong shipments, and letters asking for permission to return something. The suppliers we deal with do the best they can with a hard job, and according to my figuring a man has to make a certain number of mess-ups per hundred pieces of paper handled. If we can cut down our average, they can cut down theirs.

About the best way to start on this specification business is to put yourself in the other fellow's place when you are writing or editing an order. Suppose a mechanic comes in and says he wants 500 feet of pipe. Mentally you edit his requisition to give 500 feet of ¾-inch standard black wrought iron pipe, because you happen to know that he is renewing a hot water line that is in a hard place to get to and must last a long time.

Editing in the purchasing department is usually composed of knowing what was used before, knowing the application, and asking questions. Editing in the supplier's office, on a poorly specified order, is composed of applied mind-reading, faith, and hope. If the supplier's clerk is low on the last two items, or just plain careful, he writes a letter. At any rate your guess is better than his, because you are closer to the job, but why guess?

There are two ways to guarantee correct specification—one the lazy and the other the hard way. Since we are human and what we are, the lazy way will be covered in some detail. Briefly it is this—educate or by other means get the man in the mill to tell you exactly what he wants—size, type, catalog number, make-up, purity, and what not, in language the supplier can understand. When he wants something, see that he gets the catalog, or sends an understandable sketch or description. Sometimes a sample is the best answer. If an order of his specification is not properly laid out and the supplier writes for more information, see that he is put in touch with what the missing information was. Few practical men make the same mistake twice.

Even at that you can see that the lazy way turns into the hard way once in a while, and the hard way is editing the orders in the purchasing office. This requires the editor having at least a speaking acquaintance with the questions the supplier will want to know the answer to. Some suppliers have very kindly put instructions for ordering in their catalogs, and answering the questions asked there gives the vendor what he wants to know. Other suppliers are not so kind, and the editor must cudgel his brain for the questions that the vendor will ask. And here we jump into the detail of listing some of the questions on various types of materials, supplies, and so on. One of the safest things to do on all this is to furnish the answers to the following—what size is it, where does it go, and what must it do. On almost all machinery it is a good safe bet to show all the nameplate information that means anything on the order. Serial and type numbers are the keys to many manufacturers' files. These comments on machinery apply of course only to repair parts. On the purchase of new equipment other information as to conditions of operation are important.

The larger manufacturers of mechanical equipment publish parts lists on their equipment. Sometimes this list is only an assembly drawing of the machine with the various parts numbered. These part numbers are the most important designation that has to be written into the order, and for this reason there should be kept, either in the department originating requisitions for this type of material or in the purchasing office, files of parts lists that are as complete as possible. Some purchasing departments write into their orders a request for parts lists to be furnished with the invoice on new equipment.

Specifications in Ordering

As a basis for later discussion, suppose we lay out some arbitrary divisions on repairs and supplies and get down to details of specification.

Major Mechanical Equipment, such as pumps, compressors, machine tools, stokers, boilers, fans, elevators, cranes and hoists, and similar machines: Give the common descriptive name and part number of each part required followed by the nameplate information from the machine. If no part number is available, see if there is a pattern number cast into the

part. Often the nameplate on small or very large equipment is not filled out in detail. In this case, better put your trust in the serial number, as this will refer the supplier to the proper drawing in his file. With equipment such as stokers, where different sizes are made by assembling the same parts, the part number is all that is needed.

Minor New Mechanical Equipment: Pick out from the suppliers' catalog the item that fits the need and specify the model or type number; the size, capacity, or rating, and the catalog number. If the equipment handles some abrasive or corrosive substance specify the material and construction that past experience has shown will resist the service conditions, or give the conditions of operation and let the supplier furnish what his experience has shown is the best for the service. This latter course is best on an item not previously used, as the manufacturer is responsible if the job goes sour.

Electrical Equipment requires almost the same information as needed on mechanical equipment, with the addition of the voltage and current characteristics. The nameplate information here is of more importance than with mechanical equipment, since there are so many different kinds of the same size and type of equipment. In ordering parts from a parts bulletin, give the parts number and description, and the parts bulletin number. On starting switches, as an instance, the parts number and bulletin number will get the needed piece if it is a contact part, with no reference to the switch nameplate and current conditions. If you are ordering an auto-transformer for a starting compensator, though, the current conditions are necessary, as well as the other parts number references. On motor, circuit breaker, meter and other parts the full nameplate reading is essential. The important numbers on small equipment are the type, model, and catalog or style numbers. These same numbers should be given where shown on large equipment, and the serial number should always be given from large apparatus.

Process Machinery Parts such as loom parts, spinning, fly frame, card and picker parts, and so on, are covered by the part number and the description. The machinery builders as a rule make up a parts list on each contract of machinery sold. This type of equipment has not changed enough in the last twenty years to complicate the set-up, as has electrical and mechanical equipment.

Small Tools are best covered by size and catalog number reference to a supplier's catalog. Check this one with the shop man if he does not tell you all you want to know, as mechanics are touchy and choosy about their tools.

Standard Replacement Parts, such as ball bearings, pulleys, valves, shafting, stock steel shapes, belting, and gears are best covered by giving the size and type and referring to catalog numbers where possible.

Ball bearings usually show a catalog number stamped into the outer race. If these have been ground off by the machine builder, get someone to measure the OD and ID of the bearing and get the catalog number from the dimension tables. Comparative sheets between the makers also help on this.

Valves are as a rule covered by figure number to cover construction and flanged or threaded connections, with a choice of disc material and construction. It is usually a good idea to show on the order what material the valve will be used on—steam, air, hot or cold water, or certain chemicals.

Shafting goes by size, material and finish. If ordered cut to fit, the location of all keyways, collars, and shoulders is best shown by a sketch. When sending sketches to suppliers, always keep a copy so the supplier can refer to the same picture when writing you letters.

Steel shapes go by dimension, section and weight. On angles be sure to specify the length of both legs. Where the thickness of angles is given the weight is not necessary.

Pulleys go by outside diameter, type and width of face, construction and bore. The keyseating is an arbitrary standard. Most suppliers prefer to have the width of the belt that will be used on the pulley that has been specified.

Belting goes by width, tannage, ply and construction. If the belt will operate in an atmosphere injurious to leather or glue this should be shown in the order specifications.

Replacement gears go by number of teeth, circular or diametral pitch, material, bore and keyway, hub location and size, spur or specified angle of spiral, and tooth shape if other than standard involute.

As stated before, everybody makes a certain number of mistakes per hundred pieces of paper handled, and the fewer pieces of paper that pass before an order is understood the better. For this reason it seems a wise course to get all interested parties on a requisition to settle their differences before the order is placed, or if the order is placed subject to release to get a good price, before the order is released for manufacture. A supplier told me a week ago about an order of bobbins, placed for immediate shipment, and revised *five times in ten days, each time revised for final release.* And then the man did not get what he wanted—a clerk in the factory forgot to change one dimension. From this it would seem that it is best to make each order one transaction, rather than an order and a dozen changes—each a separate transaction and a source of error.

Often you want to buy something from some one supplier but do not have his catalog. Practically all suppliers keep an extensive file of their competitors' catalogs, so if you can refer to another company's catalog, giving the catalog number, page number, and item catalog number, you can be sure that the competitive item will be looked up and the nearest thing from the competitor's line shipped This, incidentally, is a good way to get information out of the man in the mill. Most of our offices have good catalog files, and we can, by cross-reference, do this same editing in the purchasing office.

The price part of an order has not been mentioned, but it is best to show on the order complete information on the three elements of a price—the price, who pays the freight, and the terms of payment.

CURRENT TEXTILE TOPICS

War economy basis confronts mill men

NATIONAL COTTON WEEK marks out May as a time for special consideration of an industry which provides, in its myriad ramifications, the livelihood of probably a tenth of the population. The textiles as a whole have been estimated to support probably one-sixth of the people and cotton embraces around 80 per cent of the textiles. As one of the three great essentials of life—food, clothing and shelter—textiles are a paramount national consideration.

Ten years have passed with the celebration of National Cotton Week and it becomes ever more important. As stated by the Cotton-Textile Institute, its sponsor on this, the first observance of the second decade, "the growing importance of National Cotton Week derives from a growing appreciation of cotton's importance in the national economy, from more and better advertising and merchandising by mills and merchants, and from technological improvements in cottons themselves."

This beginning of the second decade of such observance by chance coincides with a record rate of cotton consumption. Not long ago the Cotton-Textile Institute announced the inauguration of a program for promotion of a 10,000,000-bale annual domestic consumption for a future goal. Such a figure may be reached, not in an indefinite future but even this very year, as the result of a war economy.

Record consumption in spite of caution

Defense, or war economy, is carrying along the production of cotton goods and many other industrial lines to unprecedented figures in this country. The rapid conversion of the country into an "arsenal of democracy" brought shattered records for the first three months of the year and headed industries in general toward new high figures. Among the spectacular groups in commodities were rubber, copper and cotton.

Outside industrial activity under the National Defense Program is a big factor in a mill production rate the first part of this year which, if unaltered, would bring cotton consumption of 9,500,000 to 10,000,000 bales. Yardage of goods may exceed 10,500,000,000, against the 1940 record of 9,593,000,000. Naturally a stimulus has been afforded by direct defense requirements and in addition a large bulk of orders for industrial uses.

Withal, the extraordinary developments in cotton manufacture have been accompanied by a spirit of caution. Great demand has been based soundly on needs. Mill men have had plenty of warning of potential government interference with inflationary trends in their business. They did not need such warning, however, since the experience of previous inflationary periods is constantly stressed by various agencies. From goods sellers to retailers, recent advices have indicated policies of relative conservatism.

Prices sharply up, but costs rise, too

Just a suggestion that some buying of speculative nature, to forestall higher prices, was given around the end of the first quarter of the year. The Textile Fabrics Association simultaneously reflected the spirit of the trade, however, with resolutions toward maintenance of sound merchandising policies which included the admonition that "boom conditions are always dangerous." The association reported word from government officials that they did not want to crack down on business and would not do so unless trade practices endangered the rearmament program.

Prices of cotton goods shot rapidly upward in the first quarter of 1941 and mill margins on staple lines were the widest since the second quarter of 1937. The pace of advance, more than the actual level of prices, occasioned some fears of inflation. Early April, moreover, brought into view the natural corrective influences of such a movement. Buying quieted down from the heavy volume that had prevailed and even some second-hand selling was done from gray goods purchased at much lower prices.

Costs were rising, meantime, both because of the new wage scales going into effect among the mills and a government stimulus to the cotton market through proposals of new farm benefits. The widest margins for practically four years in staple goods were reduced considerably in the first part of the second quarter when cotton spurted to around the best levels since 1937.

Many changing phases under war conditions

Announcement early in April of Army proposals for about 16,000,000 yards of assorted cotton goods called attention to the direct influence of the National Defense Program upon the industry. Only estimates were available on the percentage of government business in the whole turnover of cot-

Industry Committee Recommends 37½-Cent Minimum Wage for Textile Industry . . . . . .

A MINIMUM wage of 37½ cents per hour for the textile industry was recommended by the Administrator of the Fair Labor Standards Act by Industry Committee Number 25, which met in Washington on April 14-15 to study minimum wages in this industry.

General Fleming, administrator of the act, received the committee's recommendation on April 16, and announced that public hearings on the recommendation would be held on May 15. Following these hearings, he will, under the provisions of the Act, announce his decision to accept or reject the recommendation. If accepted, the new minimum automatically becomes legally effective at a date to be designated.

The two-day meeting of the industry committee was in striking contrast to the protracted meeting of the first committee, in October 1938, which recommended the present minimum of 32½ cents, and to the drawn-out public hearings in June and July of 1939, following which the then Administrator, Elmer F. Andrews, applied the recommended 32½-cent minimum to the concerns within the scope of the industry definition—which covers cotton, rayon, silk and certain other textiles, excluding wool which operates under its own industry definition.

The personnel of the Textile Industry Committee, which voted unanimously for the 37½-cent minimum, was listed on page 77 of April COTTON.

ton goods, but one authority found defense contracts at least 30 per cent.

New demands for relief purposes are a substantial matter of consideration and they are expected to increase. The outside world will depend more and more upon American mills, moreover, as the war limits European output of textiles. The end of March brought word from England of diversion of 24,000 mill operatives to munitions work and of more mills to be closed in May.

Japan expanded during the last war in textile exports, but will hardly profit at English expense in this one. The United States is not likely to make a severe drive for temporary export business abroad, but European and other markets will face growing shortages in proportion as the war is extended. Export business should automatically expand and at any rate imports are decreasing.

War's effect upon the labor situation has become increasingly serious through the diversion of skilled help in the South, as well as the North, to rearmament work. Not only are mills hard put to meet deliveries on large orders, but loss of men through the draft and to cantonment building in the South affects quality of output.

New England Mill Situation

PRODUCERS of fine combed goods came into the second quarter of the year with backlogs of unfilled orders reported sufficient to maintain the active rate of mill operations up to July. On semi-staples and fancies, indeed, it was reported that production was bespoken right through the summer. This was in addition to orders for Army twills counted to keep some mills busy for four to five months.

Most mills were urging sales agents not to press for business last month and that contributed to a slackening of turnover that was acceptable to manufacturers, following as it did the long movement of goods buying above the rate of production. Rising prices had encouraged buyers to cover about as far ahead as mills were willing to commit themselves and temporarily at least it appeared that the limit was reached.

Labor costs axiomatically are higher in fine goods than in the carded numbers and that naturally entered into rising prices after the general advance of wage scales by mills of New England the last of March. That and the upward swing of raw cotton were factors calculated to create a further general advance in the prices of cloth from mills in this region.

As stated by Russell T. Fisher, president of the National Association of Cotton Manufacturers, the spring advance of 10 per cent made New England workers the highest paid textile operatives in the world. Prices for goods, however, he found at the time to be still under the 1937 level for many fabrics, particularly those produced in New England mills. The new scale was figured to widen the differential in favor of southern mills from 19 to 24 per cent.

Underlying conditions, meantime, are such as to predicate a very firm market for an indefinite period which depends upon the war and the defense program. The government, while keeping a careful watch on advancing prices for manufactures, is also committed to policies that raise costs. This is notably the case in raw cotton and whatever action is taken on the new minimum wage for textiles cannot be otherwise than bullish on goods.

THE new half-million dollar theater building at the Rhode Island School of Design, Providence, R. I., which was dedicated and opened for public inspection April 18. The building is a gift from Stephen O. Metcalf of the Wanskuck Company. Its large and well equipped stage will meet the many and varied demands of the school's activities. Students in textile engineering and those majoring in textile design may design and weave fabrics for the theater. The student body at the School of Design numbers more than 2600.

Cotton buying active on big consumption

Buying of the raw material in New England last month had a delayed spurt that the trade was long expecting. Manufacturers continued to seek low-priced cotton, but the sharp upturn in prices was itself a quickening influence upon demand, in addition to the broadening of requirements from the high rate of mill operations against the heavy backlog of unfilled orders. The government program, moreover, points to higher prices in cotton the coming season.

Notes on northern mill operations

Among the recent developments was approval by the Legislative Labor and Industries Committee of a bill to suspend for another two years the law barring women from working in Massachusetts textile mills after six P. M.

At the annual meeting of the Pacific Mills, Henry M. Bliss was chosen to succeed Alfred E. Colby as president. Mr. Colby refused reelection, after a tenure of many years. Mr. Bliss is one of the younger executives who has forged ahead in recent years. For twenty years he has been connected with the Massachusetts Mohair Plush Company, rising to president and treasurer. Last year he was made a Pacific director and then chairman of the executive committee. He is also a trustee and member of the executive committee of the Ludlow Manufacturing Associates.

Narragansett Mills, an old plant of Fall River idle for a long time, has been planning to re-open. The last report gave the plant 1,464 looms and 55,816 ring spindles. Its output was printcloths, twills, sateens and umbrella cloths.

Loomis and Company of Hyde Park, Boston, is rebuilding part of its plant which was damaged by fire. The company makes wadding and batting.

Farr Spinning and Operating Company, a subsidiary of the Berkshire Fine Spinning Associates Corporation, now has a force of 450 workers. The subsidiary took space a year ago in the former cotton mill of the Farr Alpaca Company, Holyoke.

Cotton consumption for March

While cotton consumption for the country bounded upward to the record monthly total of 854,179 bales in March, that of New England was a shade under the peak for years of 102,508 bales in January. The March total for the northeastern district was 102,193 bales. This compared with 94,227 bales in the shorter, but still highly active, month of February and with only 68,464 bales for March of last year.

By the wide gain for March, over a year previous, consumption for 1941 in the first quarter was lifted to more than 25 per cent above that of the 1940 comparative period. The relative increase for two months had been 15.6 per cent. Consumption in March and the same month last year in Massachusetts was 53,211 and 33,125 bales; Maine, 16,768 and 11,708; New Hampshire, 12,230 and 8,714; Rhode Island, 11,729 and 8,901; Connecticut, 7,957 and 5,525.

"THE SITUATION" as Seen Across an Executive's Desk

April 18, 1941

WITH THE ENTIRE textile industry feeling the impact of defense orders, it is well to review the situation relating to the raw material from which these defense orders must be produced. Just now planting is just getting under way throughout the cotton belt. For years and years cotton planters have planted whatever kind of seed they happened to think might bring a better market in the harvest season. Certainly the trend since the inauguration of AAA has been to the shorter staples which produced more poundage per acre, for it was in quantity that they found their profit (if any), the premium for the longer staples having vanished.

Changes in Staple Lengths

This year we find planters of large cotton holdings studying the government's defense needs and planting the seed which will produce the staple lengths required for defense work. For example, combed yarns have been in heavy demand for army twill, mosquito netting, parachute rigging, cartridge belts, etc. Most of these items were made from cotton 1-5/32-inch and longer. Most of the raw material for combed yarns comes from the Mississippi-Arkansas Delta. And in the Delta we find this situation: For the first time, the biggest switch has been from shorter staples to 1-5/32-inch to 1-3/16-inch than has ever been known from longer staple to shorter staple in one year. Fully half of the Delta acreage which produces a million bales per year of this well known quality cotton will be planted in 1-5/32-inch to 1-3/16-inch staple. A considerable increase will be noted in the staples of 1-5/16-inch and longer; and the standby for many years, DPL seed, which produced 1-1/16-inch is in the minority for the first time since 1935.

This shows that in 1941 the cotton farmer is alert to the fall market needs and though many feel that perhaps the premium of the longer staples will not justify their switching to them, they at the same time feel we are in the fight and that the government should have what it needs, whether it be raw cotton of a certain length or an Airocobra.

On the other hand, they are not altogether altruistic in their attitude, for they feel the prospects of a higher loan, around the 12-cent mark, plus the new high level in parity payments, will come their way—and justifiably. In the meantime we know that record-breaking consumption of raw cotton is going forward, with an estimated figure approaching the 900,000 mark for March 1941, and the year's goal of 10,000,000 will probably be passed before we see 1942.

Cotton Payment Legislation

Congress will in all probability pass the Russell amendment which includes in its 450 million dollar parity item, 150 million for additional parities to cotton farmers. Enormous demand for spot cotton represented by loan certificates, and other inflationary rumors have brought the cotton market up to a point where both futures and basis are high. It is understood that prices for the 1940 certificates range from $5 to $6.50 per bale in Texas, $10.00 to $12.00 in the Atlantic states, with 1938 certificates bringing $2 to $4. Rumors have it that the Bankhead bill will probably be discarded for the Russell amendment; and there are many who favor the Smith bill which directs the Commodity Credit Corporation to take over all loan stocks of cotton and hold them for the duration of the war. It is understood that the Administration favors this latter in its plan to raise farm commodities. And the Senate Agricultural Committee has approved this legislation.

With so many varying proposals before Congress, it is rather difficult to forecast just what type of legislation will be enacted. However, the general opinion seems to be that a compromise will be made and a loan of 12 cents—or thereabouts—will be authorized. There seems to be little difference of opinion as to the main objective which is to obtain the greatest possible income for the producer, but there is a very decided difference of opinion as to the means to be employed to accomplish this objective. The majority seems to favor loans at a reasonable level, with larger parity payment rather than high loans. Our opinion—based upon study of government loans in previous years—is that high loans have the effect of price pegging, resulting in:

1—reducing consumption and inviting further inroads by synthetic and other competing fibers;

2—inability to compete in foreign markets; and

3—further accumulation to the already large supply of government-owned stocks.

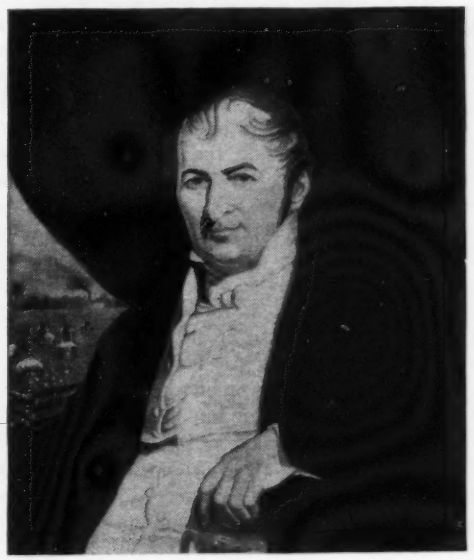
In line with this thought it is interesting to note that I. W. Duggan, director of the Southern Division AAA, last week demanded treatment of the agricultural South comparable to that given other sections of the country. The South, he said, is not asking preferential treatment but demands equal consideration. He pointed out that with raw cotton only one-half a cent higher on April 1 than it was a year ago, the wholesale price of cotton goods averages eight cents a pound higher. And he said the mill margin between the price of cotton and the price of cotton goods, is wider than at any time since 1925, when the government first began keeping records and that it may be wider than at any time in history.

Price Control

It is said that the Department of Agriculture has investigated this unprecedented margin, including labor costs, and could find nothing to justify the disparity. However, it would seem from a common sense viewpoint that the loans, and its resulting price pegging reaction, is the reason for the disparity. The mills' production is feeling today the result of the law of supply and demand, while raw cotton is feeling the result of the same old law. The mills are not burdened with an overload of stock; they never knew the blessings of a government-set floor on prices; while raw cotton is in the loan to the tune of millions of bales, and can not fail to have its price pegged floor act as a ceiling. That is just the way things work, and there is nothing occult in the system.

But because the government does not want such disparities in textiles or

• New print partnership. Polka dots and ribbon stripes in smooth Koda shirting, used for a sports classic. An ideal hot weather fabric. Fine broadcloth type woven with Eastman acetate. Courtesy, Tennessee Eastman Corp.



The man who made Cotton *King*

Eli Whitney's inventive genius and his contributions of manufacturing and ginning methods to the Cotton industry earned for him the title of, "Father of Mass Production." He is undoubtedly the man who made Cotton *King* and the predominating power in the South's economic life.

Today fulfillment of increased orders virtually shouts for mass production on a large scale. Southern Factoring is doing its part through aiding Southern manufacturers of cotton goods to meet the demand, for factoring is providing the very life blood for business expansion—*liquid working capital.* This is accomplished through purchase of your accounts receivable. Your customers retain present terms, and you receive cash immediately for your sales.

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any other item the President signed an order on April 11 creating an office of Price Administration and Civilian Supply. The new agency, headed by Leon Henderson who has had charge of price control for the National Defense Commission will also absorb the division formerly headed by Miss Harriett Elliott who was in charge of consumer protection. Problems of distribution and supply of materials for civilians after defense needs have been met will be one of the first and major jobs for the new agency to deal with.

Textiles' efforts along self-restraint lines in the upward price movement were evidenced by resolutions passed by the Textile Fabrics Association in annual session in New York early in April. These resolutions endorsed price stabilization throughout the cotton-textile industry for the duration of the present emergency in order to keep prices at a level which is properly proportionate to the costs involved. This resolution, heartily approved by the Office of Price Administration, has been generally commended throughout the textile market. It is felt that it has had a wholesome reaction and that it was a decisive factor in helping to slow up the spiraling tendencies that cotton goods were assuming.

And with all these immediately pressing phases of cotton textiles vs. raw cotton, we find the same old pattern helping as background and that is the preparation of National Cotton Week, and its promotional element. Nothing can be said about the merits of this which is too good. This year the thing promises to be only "bigger and better". And it is needed. For we have lost our foreign markets for cotton, the government is dickering around with cotton importations from Egypt (270,000 bales), the loan cotton bulk is still too bulky, and with all the record breaking consumption of cotton by domestic mills the consumption will be less than the year's available supply. Despite the bonus offered farmers for cotton stamps up to $25 worth per acre for every acre above their quota which is voluntarily not planted in cotton, the estimated acreage this year will be over 25 million acres and slightly above the acreage planted last year. Which just goes to show that if you want to bribe somebody, make the bribe bigger than their prospective income. No farmer wants to forfeit an acre which may make half a bale to sell at loan value of 12c a pound, plus a parity, for a book of cotton stamps valued at $25. With his cash money he can get his "furnish" back, he can buy a radio or a new automobile (or at least make the down payment) or do any number of things. With cotton stamps he can only buy sheets, towels, etc. It is all very nice on a theorist's note book paper, but when it comes down to real cotton farmers, whether they be one-hoss farmers or ten-tractor farmers the Department of Agriculture's secretary will just have to "come again".

What the Southern Mills are Doing

It was recently announced that the Katterman & Mitchell plant at Stanley, N. C., has been acquired by interests headed by O. Max Gardner, of Washington, D. C., and Shelby, N. C., and W. J. Carter, of Carter Fabrics Corp., Greensboro, and will be considerably enlarged and placed in operation on rayon fabrics. An additional building will be erected. J. E. Sirrine & Company, Greenville, S. C., are the architects and engineers. Equipment costing several hundred thousand dollars, for rayon yarn manufacture, has been purchased from Whitin Machine Works.

Lakedale Mills is the new name of the former Faytex Mills of Fayetteville, N. C., which are being re-opened. R. L. Huffines, Jr., former manager, will be in charge, and will also retain his position as president of Deep Run Mfg. Co., Randleman, N. C., and as vice-president of McElroy Mills of Fayetteville.

A. & M. Karagheusian, Inc., Freehold, N. J., manufacturer of wilton and axminister rugs and carpets, will build a 4-story top addition to the present plant. New structure will be used for increased capacity and is reported to cost about $200,000 with equipment.

Lyman (S. C.) Division of Pacific Mills has awarded a contract to C. M. Guest & Sons, Anderson, S. C., for a $100,000 addition to the finishing plant. 40,000 square feet of floor space will be added. Lockwood-Greene, Inc., are engineers.

Central Falls (N. C.) Manufacturing Company is constructing a two-story addition with a total of more than 20,000 square feet of floor space, to be used for warehousing and as a cloth room.

Reliable Textile Processors, Inc., Los Angeles, Calif., has been organized with a capital of $25,000 to operate a textile dyeing and finishing mill. Executives are Harold Roty and Paul H. Simon.

A bill has been passed by the General Assembly of the state of North Carolina providing for the establishment of a $100,000 textile school, probably to be erected in Charlotte or Gastonia, N. C.

San-Rog Spread Company, Dalton, Ga., has announced plans for the installation and operation of a yarn mill in connection with the bedspread plant.

J. P. Erkes has leased a building at the Victoria Cotton Mills, Rock Hill, S. C., to be used for a small plush mill. Eight looms have been installed and the plant may be expanded later.

Beaumont Manufacturing Company, Spartanburg, S. C., is reported to be planning an expansion program, which will be concentrated in the carding and spinning departments.

Raeford (N. C.) Cotton Mills is building an addition and will install new combers therein, thereby making it possible for the entire production of the plant to be fine combed yarns.

Application has been made for a charter for the Jefferson (Ga.) Finishing Corporation. Morris M. Bryan and H. Bard of Jefferson, and William L. Erwin of Athens, Ga., are interested.

American Spinning Company, Greenville, S. C., has purchased new spinning frames. Improvements will also be made in the plant, including a painting program.

Swift Manufacturing Company, Columbus, Ga., is having Robert & Company, Inc., Atlanta, Ga., prepare plans for a two-story addition.

Brewster Finishing Company, Paterson, N. J., a new organization, has leased a one-story plant for textile dyeing and finishing.

Mills Mill, Greenville, S. C., and Woodruff, S. C., plans to install new machinery, and possibly add to the buildings.

Clinchfield Manufacturing Company, Marion, N. C., has painted the interior of two plants. Exteriors will be painted later.

Elberton (Ga.) Mills, Inc., are installing new machinery, which includes 150 Jacquard looms for the manufacture of drapery and upholstery material.

A building program at Peerless Woolen Mills, Rossville, Ga., includes work on a new dyehouse.

William F. Gunter silk plant, Danville, Va., has been taken over by Fred Muster.

Aragon Cotton Mills, Rock Hill, S. C., has begun construction of an addition to the plant.

SIX-WAY SUPERIORITY OVER ORDINARY APRONS... *featured by ACCOTEX!*

HERE'S the new, *perfected* long draft apron for spinning and roving frames—one that you should know about. It's Armstrong's Accotex—the result of years of specialized research, laboratory testing, and constant field checking! Armstrong's Accotex Long Draft Aprons are made of a special compound which is both nonoxidizing and highly oil-resistant, reinforced with a preshrunk fabric interliner. Look at this six-way superiority over ordinary aprons in use today:

1 **SEAMLESS:** In Accotex Aprons there are no troublesome seams to break open and shorten life.

2 **NONSTRETCHING:** The sturdy fabric interliner so reinforces Accotex Aprons that there is no loss of efficiency due to stretching during operation.

3 **UNIFORM:** Composition of all Accotex Aprons is identical; dimensions of every size are absolutely accurate. Hence, barring mill accidents, you can count on each Accotex Apron to give consistently good service for the same length of time.

4 **CLEAN RUNNING:** These aprons do not crack or become scuffed during operation. The result?—cleaner running work—minimum waste!

5 **REDUCED LAPPING:** Accotex Aprons are not affected by changing temperatures or humidities. They perform with a minimum of lapping under varied mill conditions.

6 **LONG LIFE:** More than 100,000 spindles have already been equipped with Armstrong's Accotex Aprons. Many of them have given 18 months' to two years' service, and every indication is that they will continue to give satisfactory service for a substantially longer period.

Armstrong's Accotex Aprons are available in all sizes required for standard long draft systems in which aprons are employed. Get complete facts now about these new aprons from your Armstrong Representative; or write now to Armstrong Cork Company, Industrial Division, 923 Arch Street, Lancaster, Pa.

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COMMENT on the COTTON MARKET

New Orleans, April 15, 1941.

THE COTTON market appears to remain in a healthy position, for while values experienced a sinking spell in early part of the period under review and again owing to the adverse developments of late in the Balkans, values made new highs for thus far this season as result of persistent trade buying, which was conspicuous on recessions. Failure of Congress to act on pending farm legislation and rumors that it will be some time before final action is taken tended to restrict both trade and investment buying and induced more or less liquidation of long accounts.

Congress failed to act on any of the farm bills pending in both Houses until the 17th when the House, at the request of the Secretary of the Treasury, voted against accepting the increase of $238,000,000 added by the Senate for larger parity payments in 1941 and 1942. This adverse vote, however, had little or no effect on the market because the amendment goes to conference between committees of the two Houses and there are other bills pending before both Houses which can easily affect the course of prices for the entire season. One of these bills, by Senator Smith of South Carolina, would require the Commodity Credit Corporation to take over all loan stocks and hold them for the duration of the war. Other bills seek to make loans of 75 to 100 percent of parity mandatory on cotton, wheat, corn and a few other farm products. Another is the Fullmer Bill which seeks to impose the certificate plan, which is another name for a processing tax on the manufacturer or consumer.

Sustaining features, aside of trade support, were the record breaking domestic consumption, prospects for a higher government loan on the next crop, a strong demand for raw cotton and cotton goods, and a scarcity of "free" cotton. The smallness of exports, due to the European war, were without influence on the market, more attention being paid to above features, prospects for a limited acreage this year, enormous spending by the government and excellent United States trade accounts; the best in about 12 years.

The big discounts on new crop deliveries that prevailed in early part of the season have been reduced considerably, being all but wiped out, which affords a much better hedging basis for the trade and producer. The comparative strength of distant deliveries is attributed to the talk of probably a higher loan on the new crop and the possibility of some inflation that might come of large spending for defense, for while appropriations for this purpose have been enormous, much spending has yet to be done.

The Credit Commodity Corporation reported 161,198 bales were withdrawn from the loan stocks for the week through April 14th, making the total thus far 1,179,186 bales. Placed in the loan for the same time were 2,009 bales, bringing the total to 3,153,000 bales.

In the cotton goods market there has been much activity with values assuming a rising trend. Of late, attributed to uneasiness over the Balkan situation, business was held back. Spinners, however, appear to be in a strong position since there is said to be a short supply of most staple prints and that mills had enough orders on hand to maintain the current rate of operation for four or five months.

According to late advices from New York, cotton yarns of all descriptions have become so tight for nearby deliveries that the few spinners having such production available are able to command prices unheard of recently. The situation indicates that spinners had reached a somewhat of a sold-up condition. It is said that some of them have sold up their full production into the early fall. While rayon goods trading was reported as spotty of late, mills were said to be sold as far ahead as they are willing to go, sellers turning down commitments for the distant future.

This is a picture seldom seen. While it is possible that the clamor for higher wages by textile workers may have stimulated the demand to some extent in anticipation of the probability of a grant for higher pay, which might result in higher prices for the finished product, it is likely that the real cause for the higher price levels was due largely to the enormous government spending, which spending is apparently serving to bring prosperity to the nation and at the same time do much to save democracy. As yet consumption of lint cotton in the United States continues at a record breaking rate, Census returns for March showing the largest on record for any month, in any year in the past, amounting to 854,000 bales versus 627,000 for March of last year, of which the South was credited with 723,000 against 541,000 for March of last season.

The Department of Agriculture announces that the parity payment on the 1941 cotton crop has been fixed at 1.38 cents a pound from funds already appropriated by Congress. This will be increased about a cent a pound if the House accepts the additional amount added by the Senate. Last year the parity payment was 1.55. The soil conservation payment for 1941 has been fixed at 1.37 compared with 1.44 last year.

CENSUS REPORT

United States— Bales—	This Season	Last Season
Consumption of lint in Cotton Growing States, March	723,000	541,000
Consumption of lint in New England States, March	102,000	68,000
Consumption of lint in All Other States, March	29,000	18,000
Consumption of lint in the United States, March	854,000	627,000
Consumption of lint in Cotton Growing States, 8 months	5,184,000	4,535,000
Consumption of lint in New England States, 8 months	714,000	643,000
Consumption of lint in All Other States, 8 months	177,000	152,000
Consumption of lint in the United States, 8 months	6,075,000	5,331,000
Mill stocks in the United States, March 31	1,911,000	1,596,000
Stocks in pub. stg. & at compresses, March 31	13,244,000	11,410,000
Stocks in mills, pub. stg. & at compresses, March 31	15,155,000	13,006,000
Stocks in mills, pub. stg. & at compresses, Feb. 28	15,944,000	13,877,000
Cotton spindles active during March in C. G. States	17,229,000	17,056,000
Cotton spindles active during March in N. E. States	4,946,000	4,904,000
Cotton spindles active during March in A. O. States	621,000	593,000
Cotton spindles active during March in the United States	22,796,000	22,553,000
Cotton spindles active during Feb. in the United States	22,769,000	22,801,000
Mill stocks in Cotton Growing States, March 31	1,555,000	1,317,000
Mill stocks in New England States, March 31	303,000	224,000
Mill Stocks in All Other States, March 31	53,000	55,000
Mill stocks in the United States, March 31	1,911,000	1,596,000
Mill Stocks in the United States, Feb. 28	1,905,000	1,700,000

AMERICAN COTTON CONSOLIDATED MOVEMENT
(Figures of the New Orleans Cotton Exchange)

August 1 to April 15— Bales—	This Season	Last Season
Receipts at United States ports	3,103,000	7,107,000
Exports to Great Britain	340,000	1,779,000
Exports to France		753,000
Exports to Continent	339,000	1,826,000
Exports to Central and South America	19,000	51,000
Exports to Orient	134,000	1,228,000
Total exports	832,000	5,637,000
Total stock in New Orleans, April 15	514,000	717,000
Total stock in all U. S. ports, April 15	3,402,000	2,799,000

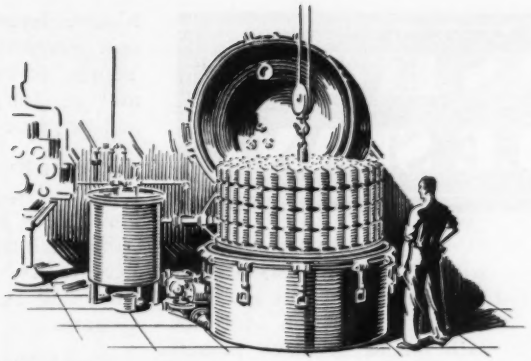
In March "Textile Research"

The March issue of "Textile Research", a publication of the U. S. Institute for Textile Research, Inc., carries several articles that will be of interest to the industry. An article by K. R. Fox and E. R. Schwarz describes an instrument for the study of compressional creep and creep recovery of yarns and fabrics, which includes a brief outline of previous developments in compression testing.

An essay by Arnold M. Sookne and Milton Harris goes into the base-combining capacity of cotton. Direct processing of whole cotton, for the extraction of cellulose nitrates, is described by George C. Holroyd and Frank K. Cameron.

Textile Testing Course During Summer at M. I. T.

A special summer course in principles of textile analysis will again be held by the Massachusetts Institute of Technology, under the direction of Edward R. Schwarz. The school will begin on July 28 and will continue for six weeks. Laboratory exercises as well as lectures and demonstrations will cover the complete microscopic analysis of textile materials, physical testing, etc. Registration information is available from Summer Session Office, M. I. T., Cambridge, Mass.



Our "dyeing edge" got us the order

"When we began to figure dyeing and finishing costs on the first of the big made-to-specification orders, our competitors could match us in speed and efficiency all along the line—in everything except package dyeing.

"Our dyeing edge got us the order.

"We can load packages 4-high on our new Butterworth Package Dyeing Machines, instead of 3-high as formerly.

"Liquor flow through the packages is increased 40 per cent because of the greater open area through the new spiral-fluted spindles. The result is complete penetration of each package with less dye than ever before possible.

"The stainless steel construction of the new Butterworth Package Dyeing Machines assures a thorough rinse and reduces the possibility of off-shade rejects."

* * *

Today, more than ever, it's the modern textile finishing plant that gets the orders and the profits.

In meeting today's demand for up-to-specification textiles, the mill that tries to "get by" with old machinery faces the gloomy prospect of producing a high percentage of costly rejects.

Here is today's bright prospect for the mill that wants to "catch up"...

Under present conditions, a new machine pays for itself two or three times as fast as it does under ordinary conditions.

For more than 120 years, our entire time and effort have been devoted to promoting efficiency in bleaching, boiling-out, drying, calendering and dyeing.

Butterworth Engineers are ready to work with you in determining whether modern Butterworth Machines or improved plant layout will help you to achieve greater yardage, better finishes, higher speeds and lower production costs.

Write us fully about your problems.

H. W. BUTTERWORTH & SONS CO.
Phila., Pa., Serving the Textile Industry Since 1820.
Offices: Providence, R. I. and Charlotte, N. C. In Canada—W. J. Westaway Co., Hamilton, Ont.

***64%**

of equipment now in use in the wet end of textile finishing cannot operate at a profit in competition with modern machines.

*Proved by Research

Butterworth

TIMELY NEWS ITEMS with a TEXTILE SLANT

Arnold, Hoffman & Co., Inc., 55 Canal St., Providence, R. I., has announced the purchase from the Hercules Powder Company of its Providence Drysalters Division, located at East Greenwich, R. I. This will be consolidated with the manufacturing facilities of Arnold, Hoffman & Co., at Dighton, Mass. The acquisition of this business enables the company to offer a variety of products. Walter R. Bunce, formerly with Hercules Powder Company, is now with Arnold, Hoffman & Co.

Harold P. Goller has become associated with Clinton Company, Clinton, Iowa, manufacturers of textile starches and other corn products.

Mr. Goller

His headquarters are in the Greenville, S. C., office, and he represents the company calling on mills in the western portion of South Carolina.

Paul Bolen has been appointed to represent Marwin Dyestuff Corporation, Warren Street, Jersey City, N. J., and will make his headquarters in the Wilder Building, Charlotte, North Carolina.

Carolina Specialty Company, Charlotte, N. C., has been appointed agent on the dryers made by C. G. Sargent's Sons Corporation, Graniteville, Mass., representing this company in Georgia, Alabama, Mississippi and Tennessee. The Fred White organization will continue to handle the Sargent line in Virginia, North and South Carolina. Carolina Specialty Company also will represent Robert Reiner Company, Weehawken, N. J., in the southern textile field.

Lawrence System, one of the country's largest field warehouse organizations, have opened headquarters at 617 Johnston Bldg., Charlotte, N. C., with Walter P. Taylor, Jr., as district manager. The concern has been in operation for 30 years, with offices in many principal cities, and the Charlotte office represents the first entrance into the Southeast, covering the Carolinas, Tennessee, Georgia, and Virginia.

Foster Machine Company has moved its offices from the thirteenth floor of the Johnston Building to 509 Johnston Building, Charlotte, N. C.

Harry L. Strube has been appointed chief engineer of the eastern division of Link-Belt Company, with headquarters at the company's Philadelphia plant, succeeding F. F. Waechter, who has resigned after rounding out 43 years of service.

Steel Heddle Manufacturing Co., Philadelphia, Pa., has added Walter D. Bates, R. F. D. No. 1, Woonsocket, R. I., to its New England sales staff. Mr. Bates, who has had more than 20 years of specialized shuttle experience, will act as the shuttle engineer for the Southern Shuttle Division of the company in the New England and Middle Western territory.

American Cyanamid Company has changed the name of its Beetle Products Division to Plastics Division, in anticipation of further substantial broadening of its activities in plastics.

Robert L. Clause has been elected president of the Pittsburgh Plate Glass Company, succeeding H. S. Wherrett, who is now vice-chairman of the board of directors. Mr. Clause has been with the company since 1914.

Ralph Hart of Hart Products Corporation, New York City, was given a testimonial dinner on March 23 by many of his friends. The party was at Sky Gardens, St. Moritz Hotel, and was "out of a clear sky" inasmuch as there was no specific date, anniversary, etc., to celebrate.

DuPont is completing a new plant for the production of sulfamic acid at the Grasselli, N. J., works.

Laminated Shim Company, Inc., Glenbrook, Conn., has announced three new vice-presidents, E. B. Nisbet, formerly purchasing agent, now executive vice-president; E. R. Young, formerly factory manager, now in charge of production; Richard Seipt now in charge of sales.

Lee H. Hill, transformer engineer, has been appointed assistant manager of the electrical department of Allis-Chalmers Mfg. Co. Mr. Hill has been active in the affairs of the American Institute of Electrical Engineers.

Mecklenburg Hotel, Charlotte, N. C., has undergone a redecorating and refurnishing program, which also includes its dining room and coffee shop. The latter will offer 24-hour service.

Eric R. Woodward, formerly associated with the Barrett Company, has joined the sales development department of Mathieson Alkali Works, Inc., New York City, where he is engaged in promotional work on new products.

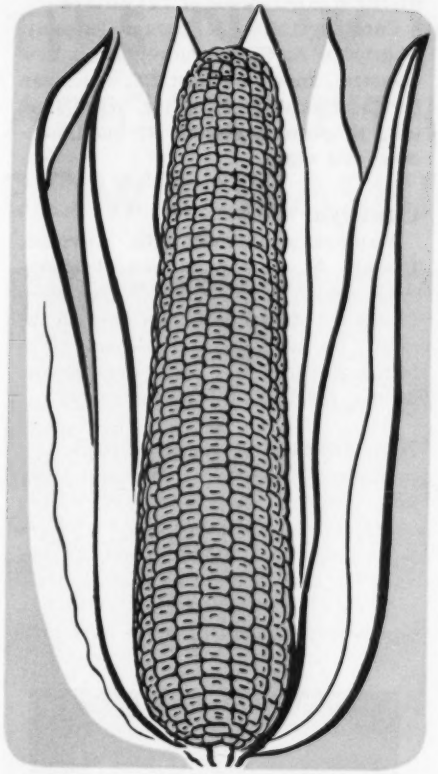
L. O. Bunton has been appointed sales representative in the South Carolina territory for Stodghill and Company, Atlanta, Ga., manufacturers of textile sizing compounds and textile chemicals.

Walker Machine Shop is the name of a new concern at Dallas, N. C., which specializes in repairing rollers, flyers and spindles. The company is headed by Charles C. Walker, who for 13 years was chief mechanic at Parkdale Mills, Gastonia, N. C. Besides the personal supervision of Mr. Walker, a capable staff of well-trained mechanics is employed.

National Ring Traveler Company is now settled in its new plant at 354 Pine Street, Pawtucket, R. I., a location which is within a stone's throw of where ring travelers were first made in this country. The new plant has been equipped with much new equipment to insure a quality product. The long-established address of "Providence, R. I., Box 1565," will continue to be maintained.

Performance Tests on Floor Coverings

The National Bureau of Standards, Department of Commerce, Washington, D. C., has recently completed tests of wear resistance on many different types of floor coverings, from composition to wood, and the results are compiled in a new Building Materials and Structures report, which may be secured for 15 cents from the Superintendent of Documents, Government Printing Office, Washington, D. C.



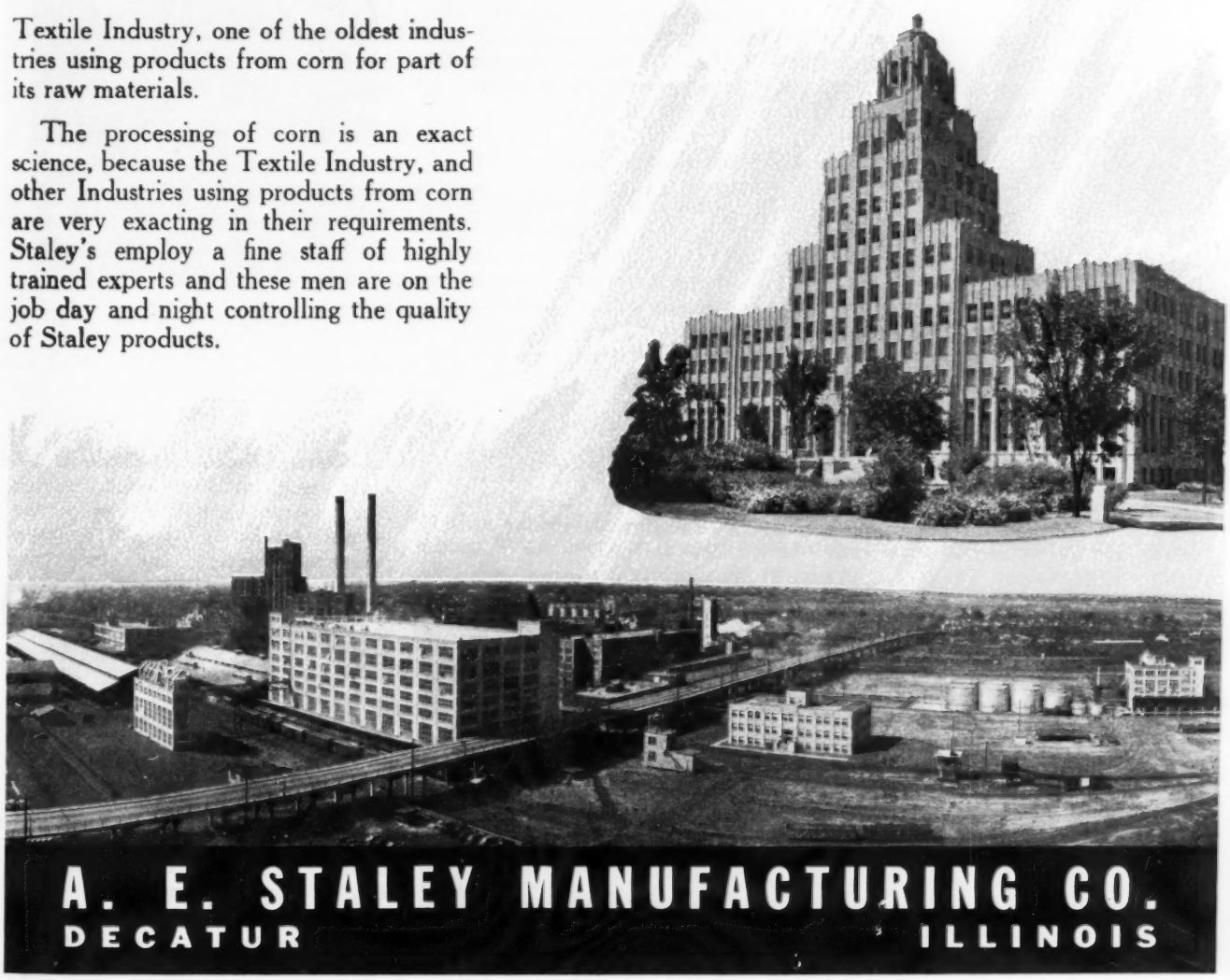
"A Tribute To An Ear Of Corn"

Have you ever ridden through the Middle West in early autumn? Thousands upon thousands of acres of corn wave in the breeze. It is an amazing sight—these countless canyons of corn—one that has often prompted this query, "What on earth do people do with all of this corn?" When the Indians taught the early white settlers to cultivate corn they gave the new-comers a better gift than they realized. This inheritance from the early Indian has become a huge industrial giant in addition to being food for man and beast.

Corn is used in innumerable ways by industry. In Decatur, Illinois, the very heart of the Corn Belt, the Staley Company has an immense plant for the processing of corn. Here the *truly golden* kernels are turned into food and industrial products, which go into many channels of commerce for use in countless numbers of other products.

Many millions of dollars are released into trade by the growers and processors of corn. A great share of these dollars from the corn country are spent for purchases which benefit all branches of the Textile Industry, one of the oldest industries using products from corn for part of its raw materials.

The processing of corn is an exact science, because the Textile Industry, and other Industries using products from corn are very exacting in their requirements. Staley's employ a fine staff of highly trained experts and these men are on the job day and night controlling the quality of Staley products.



A. E. STALEY MANUFACTURING CO.
DECATUR ILLINOIS

NEW EQUIPMENT and MATERIALS

Whitin Model H Comber, Bi-Coil Drawing Frame

Whitin Machine Works, Whitinsville, Mass., has announced the new Model H comber, said to be a high production machine. The machine has been streamlined and represents a reduction of 25.9 per cent from the length of its predecessor, the D-4. The new comber is a 6-head machine instead of the 8-head type. Design makes it easy to keep clean. The lap rests upon two creel rollers and is centered lengthwise by means of two large, highly polished buttons or guides, fixed in such a manner that they contact only the lower half of the lap. Polished lap plate is suspended from pins extending from selvage guides and can be quickly removed when necessary. Feed roll has adjustable pressure by two thumb screws, accessible from the front of the machine, so pressure adjustment can be made while the action of the roll is under observation. Jaws of cushion plate and nipper knife have been redesigned and nipping pressure can be set as heavy as required without producing a permanent crinkle in the lap. Front detaching rolls are both smooth-surfaced metallic, positively driven by means of a gear on bottom roll; pressure is applied by stirrup attached to top of weighted rod. Head end gearing is redesigned. A new weight relieving mechanism makes it possible to release the weighting of the detaching rolls and draw box rolls with one motion.

The new Bi-coil drawing frame made by Whitin is said to make material savings in machine investment, floor space and can requirements. Features are that it will give double the production of conventional drawing, requires half the number of sliver cans for drawing and for first roving process, and saves floor space while doubling production. Standard 4-roll drafting is used, with draft being 4 instead of 6. The ordinary selvage guide which rests on the web between the first and second line of rolls is provided with a finger in the center which separates the web into two equal parts. After the twin webs emerge from the front roll, each is condensed through a specially designed trumpet. The can motion has been redesigned to prevent insertion of twist in the slivers.

◆

Bronze Swing Check Valve

Jenkins Bros., 80 White Street, New York City, have announced a new regrinding swing check valve, Figure 92, for 125 pounds steam pressure at 500 degrees F., or 250 pounds non-shock cold oil, water or gas. This valve permits full flow practically equal to that of the pipe and is particularly suited for condensate and return lines. Disc can be reground without removing the valve from the line. Made in sizes ¼-inch to 2-inch inclusive.

◆

"British Cotton and Rayon Textiles"

M. Stanley Brown, U. S. Market Advisor of the Cotton Board of Manchester, 103 Park Ave., New York City, has announced that the book "British Cotton and Rayon Textiles" is now available, not for sale, but gratis to prospective buyers of British textiles. The publication contains nearly 200 full-color illustrations of fabrics for apparel, furnishings and household uses. Over 400 samples are reproduced in black and white, and there are 40 long articles on different classes of fabrics. It may be secured by writing directly to Mr. Brown.

Left, the new Model H. Comber; right, Bi-Coil Drawing

Mildew and Mold Preventive

Carolina Aniline & Extract Company, Charlotte, N. C., has developed a new chemical, known as Mert ZT, which can be incorporated in paint, varnishes, etc., to prevent growth of mold, mildew, and algea.

◆

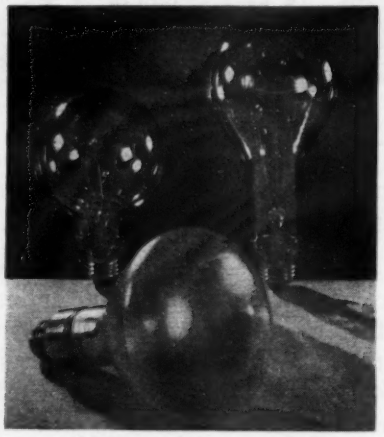
Conveyor Belt

Manhattan Rubber Mfg. Division, Passaic, N. J., has announced Homocord conveyor belt, which combines flexibility of cord construction with the ability to hold metal fasteners. The belt has been tested under service conditions for more than two years.

◆

New Infra-Red Heat Lamps

Birdseye Division of Wabash Appliance Corporation, Brooklyn, N. Y., has made available three new infra-red heat lamps, two of which are for use with the standard gold-plated or Alzac reflectors, and the third not to require any separate reflector since it is built



Infra-red heat lamps

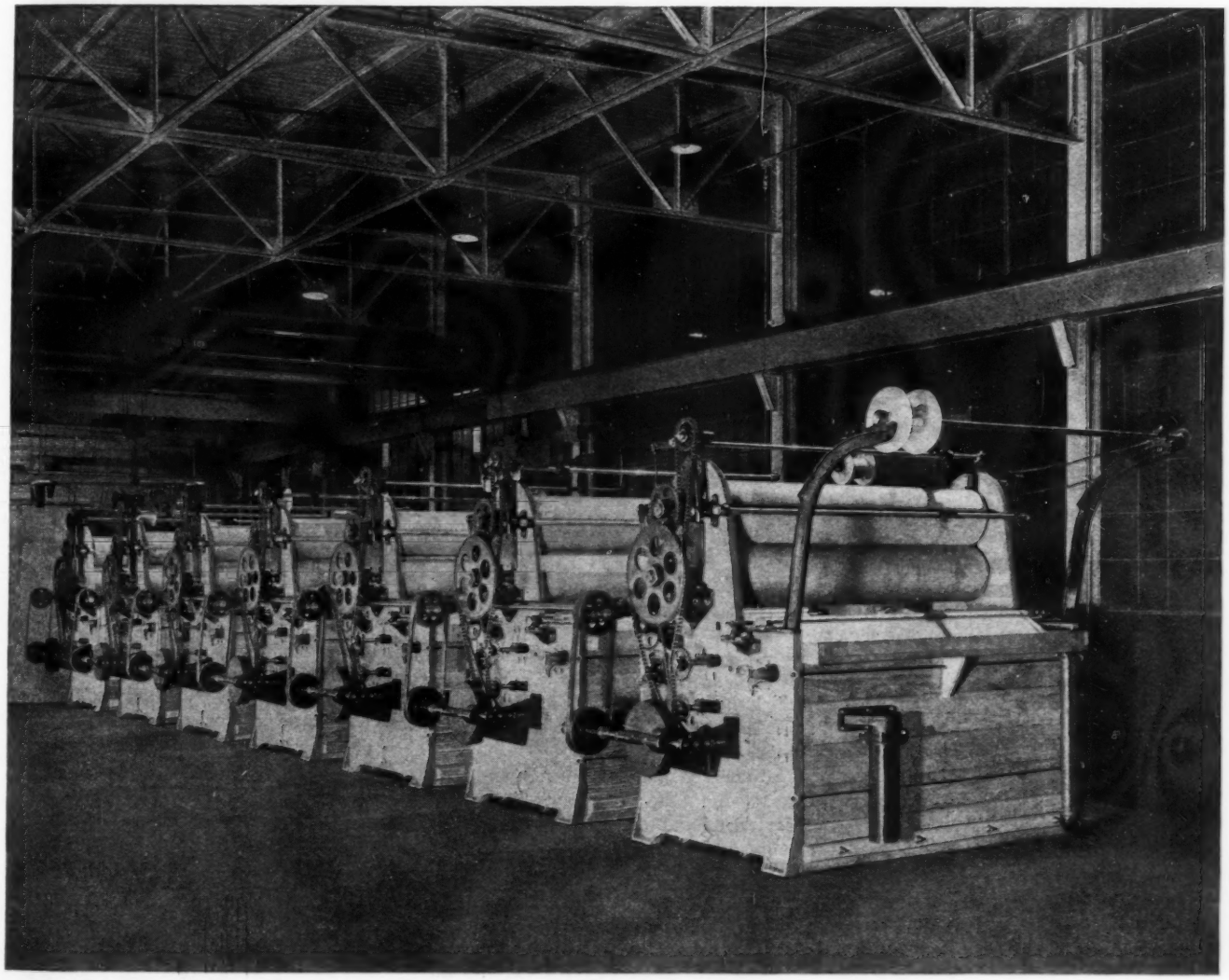
with its own reflector lining sealed inside to keep it free from oxidation and the collection of dust, dirt and fumes. The lamps are said to operate at lower temperatures, developing infra-red radiant energy at wave lengths having high penetration. Infra-red lamps may be used for drying films of lacquers, paints and enamels, and other purposes.

◆

Butterfly Valve

R-S Products Corporation, Germantown Ave., Philadelphia, Pa., has designed an improved butterfly valve in which internal parts are machined to assist operation and to obtain a tight fit between the housing and the vane. The valve, which is for use on air, gas, steam and liquid control, is available in size ranges of from 2 to 48 inches and for working pressures up to 15 pounds. Adjustable stops are provided to stop the vane in either of two set positions between open and closed.

THIS NEW HUNTER SCOURING UNIT AFFORDS EITHER CONTINUOUS OR SINGLE BOWL WASHING . . . .



JAMES HUNTER MACHINE CO. Hunter NORTH ADAMS MASS.

Western Representative
E. G. PAULES
343 Bendix Building
Los Angeles, California

In the continuous scouring range shown above, Hunter offers a Continuous Washer that is really flexible. This new Hunter unit differs from all other known Continuous Washers in a very important respect. It is this: It may be used either as a continuous range, or as seven individual Cloth Washers which may all be used at one time with seven different loads, or as few or as many bowls as may be required. The continuous unit can be made for any production requirement.

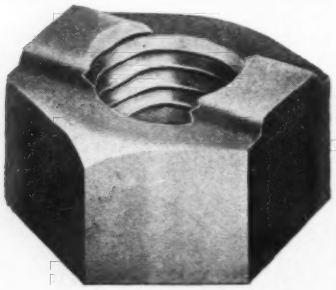
This new Hunter machine is relatively low cost in its initial expense and is inexpensive to operate. For complete details and actual production records, write to

JAMES HUNTER MACHINE COMPANY

SINCE 1847 NORTH ADAMS, MASSACHUSETTS

Grip Lock Nut

Of interest to the textile industry is a lock nut manufactured by Grip Nut Company, 5917 South Western Ave., Chicago, Ill. When the nut is applied, the upper threads, which are deflected,



Grip lock-nut

press downward against the bolt threads, drawing the nut outward (towards the end of the bolt) thus forcing the nut threads into tight frictional contact with the corresponding bolt threads, creating a positively locked application which is said to remain immovable under vibration.

◆

Increases Life of Fabrics

United States Rubber Company, Rockefeller Center, New York, has announced a new process which is said to double the life of many fabrics. It is a new chemical and latex process known as Kolok, and is said not only to double the life of fabrics, but also to cause them to resist shrinking and to repel moths. Hosiery, underwear, suits, sweaters, gloves and overcoats are among the articles which have been treated and tested. The process consists in depositing within the fabric minute particles of latex solids which rivet the fibers together.

◆

Paint Guide

Sherwin-Williams Company, Cleveland, Ohio, has made available an excellent plant maintenance painting guide, which consists of specifications for proper maintenance outlined in graphic check-chart form. Two 8x10 photographs show the plan layout of exterior and interior of factories, with various parts of buildings and auxiliary equipment labeled for convenience. Beside each type of construction or piece of equipment, such as wood sash doors or hydrants, there is a key number, which refers to instructions for the type of paint to be used on the specific part, and the preparatory treatment and finish that it is desirable to give protective painting. The plan layouts and instructions may be posted on the wall of the maintenance engineer for reference. This plant maintenance painting guide may be secured through the service department of "Cotton (Serving the Textile Industries)".

"Davison's Cordage, Twine & Duck Trade" Directory

Davison Publishing Company, Ridgewood, N. J., has made available the new "Cordage, Twine & Duck Trade" directory, which contains useful information on mills, dealers and purchasers of this type of product. With thumb indexes and printed on coated paper, it sells for $3.00.

◆

New Bearing

Link-Belt Company, 307 N. Michigan Ave., Chicago, Ill., has announced a new streamlined babbitted-bearing common flat box, with maroon-colored crackle-finish housing. It is designed for moderate speed and power requirements, available in 24 sizes for shafts of ½-inch to 3-inch diameters.

◆

Anti-Friction Bearings for Printing Machine Mandrels

Fafnir Bearing Company, New Britain, Conn., has announced new roller bearing Mandrel units for printing machines. The bearing is for high capacity work, is self-aligning, and takes loads imposed by sidewise adjustment. It is said to be easily installed in place of the original plain bearings. Possibility of oil leakage is eliminated as the units are grease-lubricated.

◆

New Rayon Tire Cord for Passenger Cars

Fisk Division of United States Rubber Company has announced a new rayon cord tire for passenger car service which is said to offer longer mileage, greater safety, and added resistance to deterioration due to heat. Heretofore, much of the emphasis on rayon tires has been in the heavy-duty classes of service, including trucks, buses, and commercial vehicles.

◆

New Process for Making Tire Cord Released to Industry

After four years of research, and the expenditure of about $100,000, Everett Cook, president of the Cotton Research Foundation, has announced to the tire trade a new process for making cotton tire cord, which is described by the Foundation's scientists as yielding the best cotton cord the industry has ever seen. Present plans are to make the process available to the textile industry through a royalty payment low enough to encourage the widest use of the process throughout the trade, all proceeds therefrom being used to carry on the work of the Cotton Research Foundation, which is a non-profit organization serving as the research arm of the National Cotton Council of America.

The new process was worked out at the Foundation's laboratory in the Mellon Institute for Industrial Research at Pittsburgh by Dr. R. F. Nickerson, under the supervision of Dr. L. W. Bass, assistant director of the Institute.

Claims for the new cord include a 35 per cent greater breaking strength and longer flex life than the best conventional cotton cords of the same gauge, plus a low susceptibility to heat and moisture under conditions of severe service.

• Miss Catherine Gray of Gastonia, N. C., who will be crowned queen of Gastonia's Fourth Annual Grand Cotton Festival during week of June 9th.

◆

1941 Edition of "Worth Street Rules"

The 1941 edition of "Worth Street Rules", approved by 13 buying, selling and producing organizations in connection with cotton-textile contracts, has been issued by the Association of Cotton Textile Merchants of New York, 40 Worth Street, New York City. The effective date is April 17, 1941.

The new edition includes the revised Standard Cotton Textile Sales note, four fabric specifications, the revised panel and rules of the General Arbitration Council of the Textile Industry, definitions and trade customs, and other data. It includes for the first time the Trade Practice Rules of the Cotton Converting Industry and the Trade Practice Rules for the Shrinkage of Woven Cotton Yard Goods, as promulgated by the Federal Trade Commission. Another new section is devoted to the recent revision of Commercial Standard CS59-41 on the Testing and Reporting of Woven Textile Fabrics, with special reference to the subjects of color fastness, breaking strength, shrinkage and yarn slippage.

◆

"Salt of the Earth"

Atlantic Monthly Company, Boston, Mass., has announced the publication of "Salt of the Earth", by Arthur Pound, which is the story of Captain John B. Ford and the Michigan Alkali Company. History of the company is traced. The book is profusely illustrated with full-page cuts of the Ford family and scenes from manufacturing departments of the company.

Oil Spattered Warps Cut Loom Profits

Profits from looms depend on perfect goods. Clean cloth is impossible where oil drips and leaks.

WISE MILLS guard against such oil spot losses. They use the drip-less, waste-less lubricant---NON-FLUID OIL. They also save money on oil and application cost, for NON-FLUID OIL outlasts oil many times.

Write today for free testing sample and bulletin, "Lubrication of Textile Machinery"

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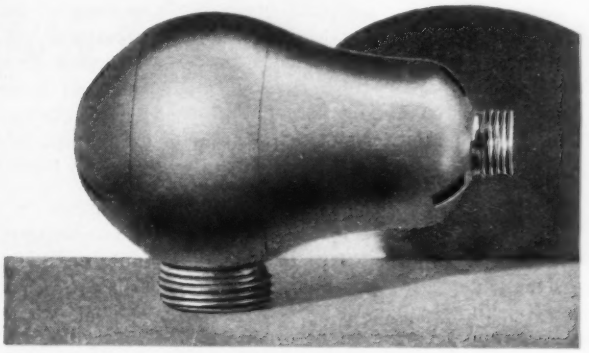
TRADE MARK REGISTERED
NON-FLUID OIL
IN U.S. PAT. OFFICE & FOREIGN COUNTRIES

MODERN TEXTILE LUBRICANT

Better Lubrication at Less Cost per Month



Only the Turbomatic is Diaphragm-atic

The Turbomatic Self-Cleaning Humidifier is the same old Turbo with a diaphragm.

Diaphragm actuation of cleaning mechanism is used because:

Its on or off action is more *positive.*

It calls for *fewer* and less complicated *parts.*

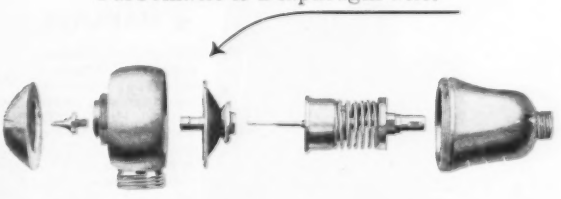
The whole device is *simpler.*

There is *no* likelihood of *sticking.*

And *no leakage* of expensive compressed air.

Being positive in action, with fewer parts, it is easier to care for, if after long, hard service it needs attention—as no doubt it may. Being simpler, with no likelihood of sticking or leaking, it is better. Diaphragm construction is what makes it so.

The Parks Turbomatic Self-Cleaning Humidifier is the same old Turbo, atomizing as only a Turbo can . . . but only the Turbomatic is Diaphragm-atic.



Parks-Cramer Company

Fitchburg, Mass. Boston, Mass. Charlotte, N. C.

Additional Personals

JACQUES ERRERA, formerly professor of physical chemistry at the University of Brussels, Belgium, has been appointed manager of the research and control division of Sidney Blumenthal & Company, Shelton, Conn., manufacturers of velvets, plushes and other pile fabrics.

ALVIN F. DAVIS, Clemson College textile graduate in the Class of '38, has resigned as third shift overseer of weaving at Arcadia Mill No. 2 to become night superintendent of Jackson Mill No. 2, Wellford, S. C.

G. H. MAHAFFEE, who has been overseer of carding and spinning at the Alexander Manufacturing Company, Forest City, N. C., has returned to the Riverside Division of the Riverside and Dan River Cotton Mills, Danville, Va., where he is overseer of the No. 2 card room, the position he held before going to Forest City.

WALTER S. MONTGOMERY, president and treasurer of Spartan Mills, Spartanburg, S. C., and Startex Mills, Tucapau, S. C., has also assumed this position with the Beaumont Mills of Spartanburg, succeeding D. L. JENNINGS, retired.

Obituary

WILLIAM A. BRIGGS, who has been associated with the Boston Woven Hose & Rubber Company since 1903, and who was manager of southern sales district for the company, with headquarters in Atlanta, Ga., passed away March 22.

HAROLD E. HAUSEMAN, 49, for the past eight years prominently affiliated with Scott & Williams, Inc., Laconia, N. H., passed away March 21. He had been engaged in experimental work and a number of knitting machine patents had been assigned him.

WILLIAM CORCORAN REYNOLDS, former president of Cynthia Mills, Inc., passed away March 8 at the age of 77.

THOMAS L. SMYTH, 27, vice-president of Balfour (N. C.) Mills, Inc., and a grandson of CAPT. ELLISON A. SMYTH, was killed instantly in an automobile accident April 2 while he was returning home from the Southern Textile Exposition held at Greenville, S. C.

J. EDWIN NELSON, 42, president and general manager of Intermountain Knitting Mills, Inc., Ogden, Utah, died unexpectedly of a heart attack April 3.

WALKER SANFORD DUNSON, president and treasurer of Dunson Mills, LaGrange, Ga., passed away at his home during March after two years of failing health.

DONALD Z. LEMIEUX, 56, manager of the Globe Worsted Mills, Utica, N. Y., passed away April 5.

JOHN MCDONAGH, New England representative for Jacques Wolf & Company, passed away recently while on vacation in Florida.

FREDERICK C. BRYAN, for 30 years general traffic manager of Allis-Chalmers Manufacturing Company, passed away at his home in Milwaukee, April 7, as the result of a heart attack. It had been Mr. Bryan's job to see that the giant turbines, electrical apparatus, farm and other industrial machinery safely and quickly reached purchasers all over the world.

EDWIN H. MARBLE, 88, president of Curtis & Marble Machine Co., Worcester, Mass., passed away at his home on April 16, following an extended illness.

FREDERICK K. NIXON, 69, general sales manager of Riverside & Dan River Cotton Mills, passed away suddenly April 10 of a heart attack. He was a vice-president and a director of the company he served, and was active in business up until the time of his death.

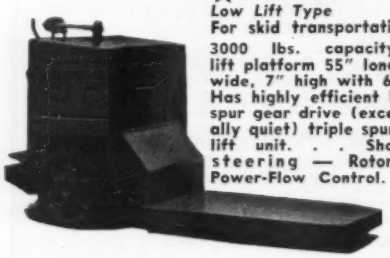
TRADE AUTOMATIC MARK

Manufacturers for Over Thirty Years

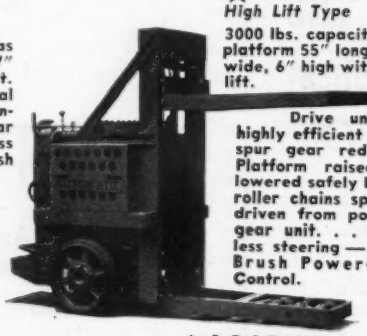
MODERN *Electric Propelled* INDUSTRIAL TRUCKS

FOR ECONOMICAL MATERIALS HANDLING IN THE TEXTILE INDUSTRY

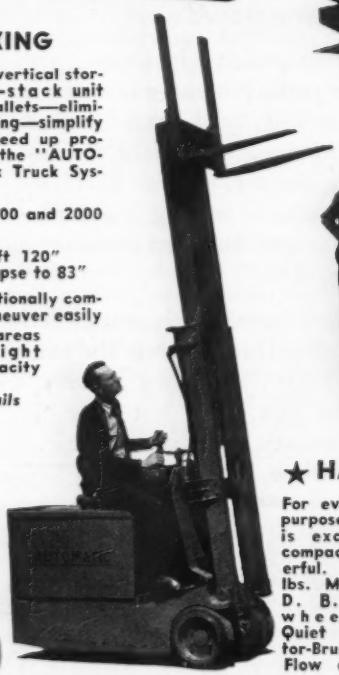
★ LIFTING
Low Lift Type
For skid transportation
3000 lbs. capacity—has lift platform 55" long, 27" wide, 7" high with 6" lift. Has highly efficient helical spur gear drive (exceptionally quiet) triple spur gear lift unit. . . Shockless steering — Rotor-Brush Power-Flow Control.



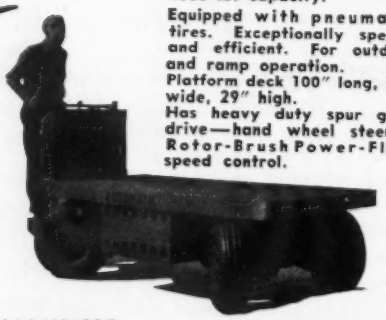
★ TIERING
High Lift Type
3000 lbs. capacity has platform 55" long, 26" wide, 6" high with 60" lift.
Drive unit has highly efficient helical spur gear reduction. Platform raised and lowered safely by two roller chains sprocket driven from powerful gear unit. . . Shockless steering — Rotor-Brush Power-Flow Control.



★ STACKING
Use your *full* vertical storage space—stack unit loads on pallets—eliminate re-handling—simplify inventory—speed up production—use the "AUTOMATIC" Fork Truck System.
Capacities 1000 and 2000 lbs.
Telescopic Lift 120"
Uprights collapse to 83"
Truck is exceptionally compact, will maneuver easily in congested areas also lightweight for min. capacity elevators.
Get Full Details



★ LOADING
Platform Type
4000 lb. capacity.
Equipped with pneumatic tires. Exceptionally speedy and efficient. For outdoor and ramp operation.
Platform deck 100" long, 51" wide, 29" high.
Has heavy duty spur gear drive—hand wheel steer—Rotor-Brush Power-Flow speed control.



★ HAULING
For every hauling purpose. Tractor is exceptionally compact and powerful. Has 1000 lbs. Max. hauling D. B. P. Two wheel steer. Quiet drive. Rotor-Brush Power-Flow control.

Listed Under Reexamination Service of UNDERWRITERS' LABORATORIES

AUTOMATIC TRANSPORTATION CO.
Div. of the Yale & Towne Mfg. Co.
67 W. 87th St. CHICAGO, ILL.

FOR *Spun* RAYONS

The LATEST WORD in FINISHES

The always-popular spun rayons are being carried to new sales heights by public demand for fabrics processed with the *modern* finish.

The modern finish is RESIPON A M; it gives all types of spun rayon fabrics a smooth, full hand similar to that of fine pure silks.

Shrinkage is greatly reduced in processing, leaving a very low residual shrinkage in spun rayons which are to be sanforized.

Excessive heat for curing is not required during the drying operation; fabric will not "yellow".

Applied on a quetch; economical in application; offering low finishing costs, RESIPON A M is the latest word in finishes.

Samples or demonstration gladly furnished on request.

RESIPON A M

ARKANSAS CO. INC.

NEWARK • NEW JERSEY

PERSONAL NOTES
About Men You Know

JOE LYONS, who for sometime has been associated with the Orr Cotton Mills, Anderson, S. C., as superintendent, has also become associated with the Chiquola Manufacturing Company, Honea Path, S. C., in an executive capacity. GUY CROMER, formerly second-hand in carding at Orr has been made overseer of carding at Chiquola. J. T. CHALMERS has resigned his position as overseer of weaving at the Inman (S. C.) Mills to become overseer of weaving at the Orr Cotton Mills, succeeding S. H. BEVILLE, who retired after serving 41 years with the company. ROBERT HAMMOND, formerly master mechanic at the Lydia Mills, Clinton, S. C., is now master mechanic at Chiquola Manufacturing Company, succeeding JOHN E. ELKIN, who has resigned after 40 years service with this company.

DR. LUTHER B. ARNOLD, JR., has been transferred from the technical laboratory of the organic chemicals department, E. I. duPont de Nemours & Co. Inc., at Wilmington, Del., to the technical division of the Rayon department, Richmond, Va.

HENRY M. BLISS has accepted the position as president of Pacific Mills, with plants in the textile centers of New England and the South. Mr. Bliss, who formerly was vice-president and chairman of the executive committee, succeeds ALFRED E. COLBY, who recently resigned as president and treasurer.

J. C. EWING, who for some time has been associated with the Kendall Company, with plants in North and South Carolina, has been named manager of the company's Wateree plant at Camden, S. C., succeeding A. STANLEY LLEWELLYN, who, as noted in the April issue, is now general manager of Inman (S. C.) Mills and Riverdale Mills, Enoree, S. C., a newly created position.

J. L. ADAMS, formerly superintendent of the Whitney (S. C.) Manufacturing Company, has become plant superintendent of the Beaumont Manufacturing Company, of which W. A. BLACK, formerly superintendent, is now general superintendent.

LEE SENS, formerly superintendent of Glen Raven Cotton Mills, Plant No. 2, Kinston, N. C., has accepted a position as senior cotton processing technician at the new Regional Research Laboratory of the Department of Agriculture, located at New Orleans, La.

B. B. SNOW has been promoted from superintendent of Bibb Manufacturing Company's No. 2 mill, at Macon, Ga., to general superintendent of all of the company's plants in Macon, under L. R. BRUMBY, general superintendent of the company's entire chain, which includes plants at Columbus, Porterdale and Reynolds, Ga., as well as those in Macon. Mr. Snow's new position is a newly created one. GEORGE D. CROSS has been promoted from assistant superintendent to superintendent of the No. 2 mill.

ROBERT M. MCCRARY, Clemson College textile graduate of 1935, formerly overseer of spinning and assistant superintendent of Gossett Mills, Williamston (S. C.) Plant, is now superintendent of the Martinsville (Va.) Cotton Mill Company, Inc.

CHARLES LALINE, formerly superintendent of the Amoskeag Mills, Manchester, N. H., and lately in charge of carding at Dana Warp Mills, Westbrook, Me., has resigned to become contact man with Ashworth Bros., Inc., Fall River, Mass., manufacturers of card clothing.

W. C. CANDLER, Alabama Polytechnic Institute graduate, and for some time connected with Callaway Mills, LaGrange, Ga., has been made superintendent of the Villa Rica (Ga.) Textile Mills.

GEORGE R. GRICE, who has been superintendent of the Lola Mills, Inc., Stanley, N. C., is now associated with the Ranlo (N. C.) Manufacturing Company.

Golf Prize Winners at Mobile

(*See convention story, page 78*)

Golf prizes for the Alabama meeting were furnished through the courtesy of the suppliers of machinery and allied products. **Homer Carter** was in charge of the tournament, and **Miss Dorothy Kirby** of Atlanta, golf champion, presented the awards at the annual banquet Thursday night. Winners of the tournament follow: Low net for mill men, **George Elliott** of Dallas Manufacturing Company; low net for salesmen, **Louis Kirby**, West Point, Ga.; lowest gross score for mill men, **Joe Jennings**, West Point Mfg. Co., Fairfax, Ala.; lowest gross score for salesmen, **Ed Merritt**, Southern Belting Company; highest gross score, **Ed Branch**, Huntsville, Ala.; lowest total score on par 3 hole, **Ted Wallace**, Keever Starch Company; closest to cup on No. 3 hole, **Tom Cousins**, Dwight Mfg. Co.

Waiting Room Stuff

"Greenville Textile Show Edition"

Conventions, textile shows, knitting shows, yarn, golf tournaments, and meetings of all kinds, make up a good deal of the general conversation in mill waiting rooms, and with the passing of another Southern Textile Exposition at Greenville, we try to figure out what some of the boys will be talking about.

A couple of shows back, it was the Girl Orchestra at "The Pines" on the outskirts of town. Last show it was the "golf game". This year the Girl Orchestra was gone and the only golf we heard about was played out at the Country Club. There was still lots to talk about entirely separate from the machinery and equipment on display, such as:

•

The Saco-Lowell salesmen who spent the night wandering about the streets of Greenville because they found their beds occupied by mill officials.

•

The 5:00 A.M. argument on the merits of cork vs. leather for roller covering on rayons, filling the seventh floor of the Poinsett Hotel.

•

Flashlight photographs being taken in the Poinsett dining room (a good deal of the time the camera wasn't working).

•

The publication representative who offered to slap Clare Draper but who withdrew his offer when Clare started to take off his glasses.

•

The nicely dressed old lady of 87 years who went through the entire show and stopped and talked to lots of the boys at the booths.

•

The souvenir hunters (if this keeps up somebody will have to give a prize for the best souvenirs).

•

The canes from Stein-Hall & Company which lasted about two days of the show.

•

The efforts of one and all to trick the mind readers at the E. F. Houghton & Company, where visitors were treated to one of the slickest shows ever seen at the exhibit.

The girls in the Abbott Machine Company booth on the stage looked as if they wanted to match the usher in their advertising.

•

Luke Castile's (Keever) Dutch derby hat—"a fixture".

•

Who won the drawings for the motor oil at Tide Water Associated Oil and for the kitchen ware at one of the stainless steel booths?

•

George Hacker of Gaston County Dyeing Machine Company was not complaining about stainless but he was complaining about bearings and we didn't notice any of the bearing companies rushing him off his feet.

•

The little loom which Draper Corporation had installed in the center aisle was undoubtedly one of the best "stoppers" in the show.

•

However, topping that in comment was the sign posted outside the hall on "Park your camera—no photographs."

•

The Punch and Judy show of U. S. Steel Company was pretty well muffled, and all lookers had to stand up close to catch it.

•

General Electric's stroboscope pattern matching machine left all lookers a trifle goggle-eyed.

•

Did Marjorie Osteen (Staley) have more than one of those dolls wearing cloth from every mill in Greenville? If not, that baby certainly got around, as we saw her at three different places ending up at the Norma-Hoffman booth late in the week.

•

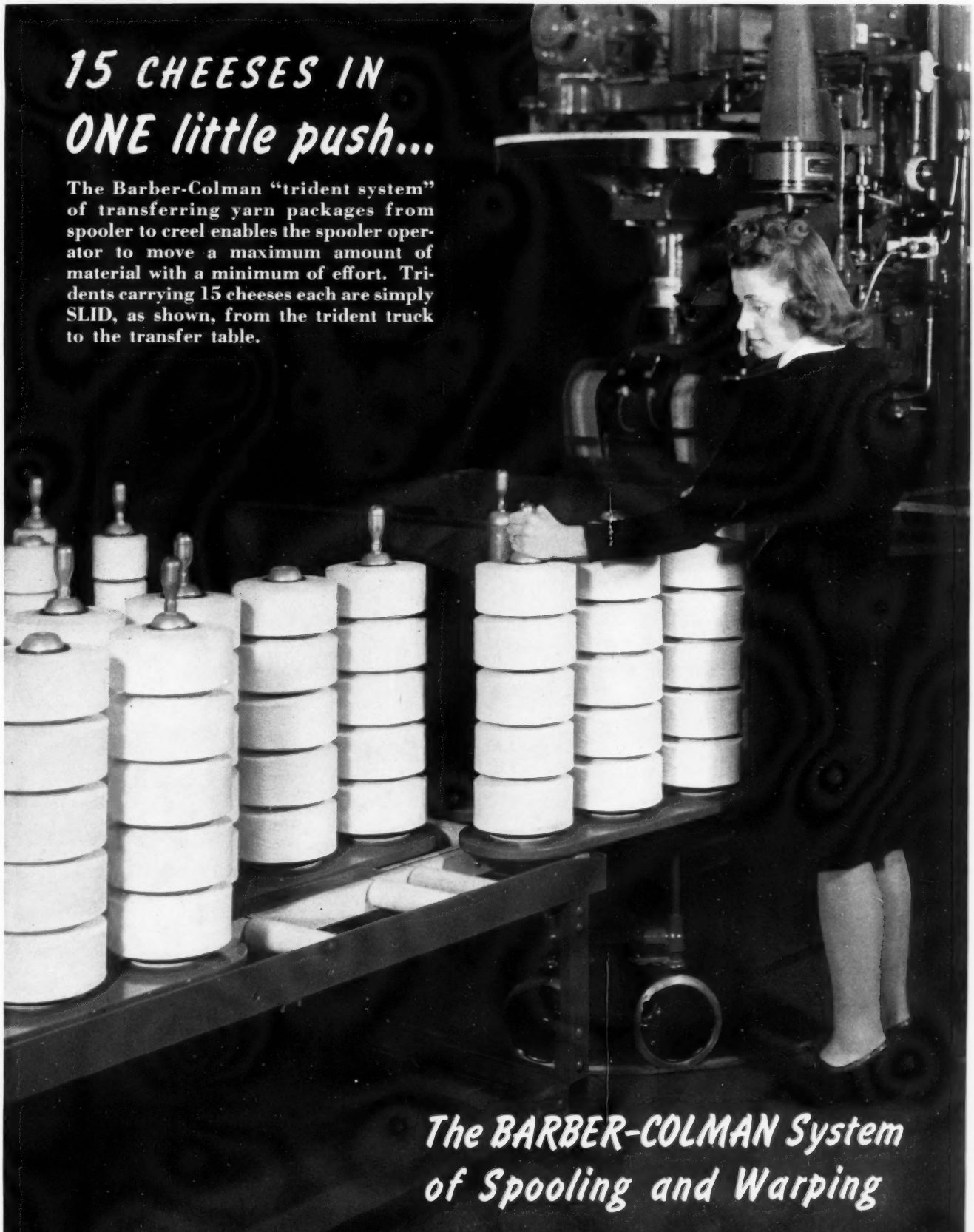
American Cyanamid & Chemical Company had a crowd all week with their news ticker and visitors got the latest war news right off the wire, as well as advance dope on a golf match that never did come off.

•

Also, in closing, that was good cold ice water around "Cotton's" booth and we could always tell a visitor's behavior the night before by the amount of water he consumed here the next day.

15 CHEESES IN ONE little push...

The Barber-Colman "trident system" of transferring yarn packages from spooler to creel enables the spooler operator to move a maximum amount of material with a minimum of effort. Tridents carrying 15 cheeses each are simply SLID, as shown, from the trident truck to the transfer table.



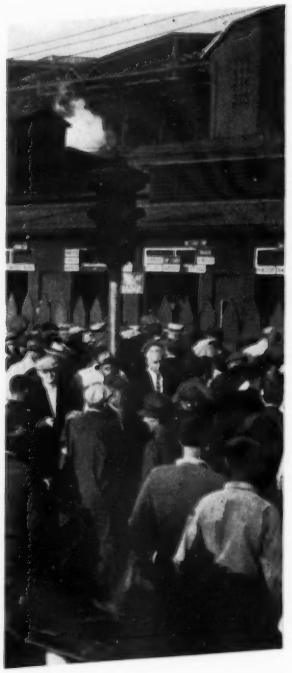
The BARBER-COLMAN System of Spooling and Warping

BARBER-COLMAN COMPANY

ROCKFORD, ILLINOIS, U. S. A.

FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A. • MANCHESTER, ENGLAND • MUNICH, GERMANY

ALL OUT

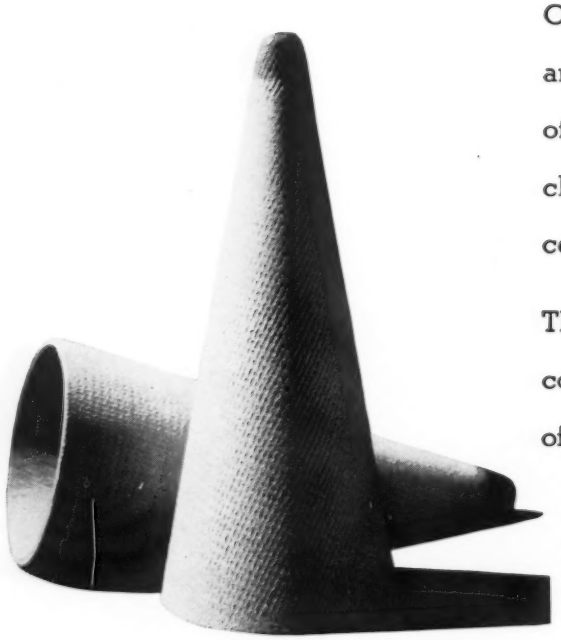


Sonoco is all out to meet demands of both business and government.

Normal business should function as smoothly as possible during these unprecedented days, in order that our national economy remains fundamentally stabilized.

Our National Defense Program is an *all out* program—the meaning of which becomes increasingly clear—the effects of which concerns *everyone*.

The Textile Industry is vital to our country—Sonoco is a vital source of supply to textile manufacturing.

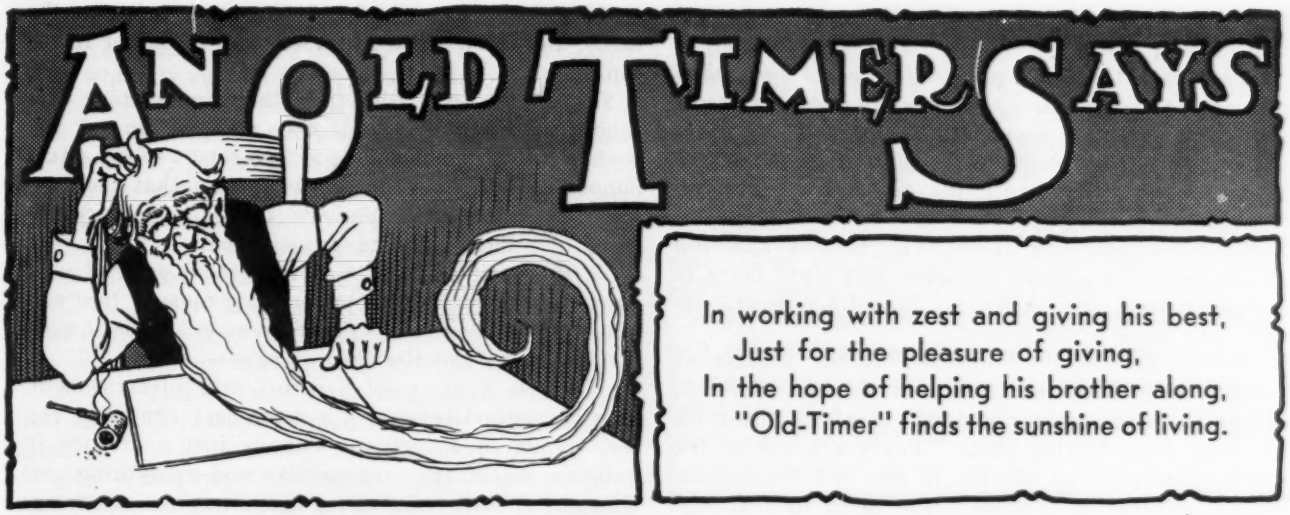


SONOCO MAKES *EVERYTHING* IN *PAPER CARRIERS*

SONOCO PRODUCTS COMPANY

BRANTFORD ONT. | HARTSVILLE S. C. | MYSTIC CONN.

DEPENDABLE SOURCE OF SUPPLY


AN OLD TIMER SAYS
In working with zest and giving his best,
Just for the pleasure of giving,
In the hope of helping his brother along,
"Old-Timer" finds the sunshine of living.

There's Good Dope in the Ads

(Since this article is written in conversational style, it should be borne in mind that those paragraphs in regular type represent OLD-TIMER's part in the conversation, while those in *italics* represent JIM's part.)

Well, for Pete's sake, OLD-TIMER, *you've been looking at your copy of* COTTON *for an hour or more. Hurry up and get through so we can talk. What articles have you found so interesting, anyway, to hold your attention so long?*

Haven't got to the articles yet, JIM—

Haven't got to—well, confound it. Just looking at the pictures? That's a good one, what—

No, JIM, not just looking at the pictures, but studying the advertisements—

Fixing to buy something, OLD-TIMER?

No, not specially, JIM, but you never can tell whether there is something advertised that you *should* buy or not until you study the ads to see what is new in the way of machines, devices for old machines, or some kind of belt, check strap, bolt, setscrew or whatnot, which is a better supply than you are paying the same money for now. Apparently, JIM, it has been so long ago that you have forgotten what I tried to explain to you about Economy. Economy doesn't simply mean not spending money, when you are running a business of most any kind, especially a business such as a mill, a foundry, a machine shop, an automobile factory or any such business that depends upon its profits, yes its very existence, on keeping the machinery, equipment, etc., up-to-date.

I'll admit that in past years some mill presidents or those responsible for the buying did have the idea that they were saving money when they ordered six bolts when the superintendent made out a requisition for 12, or bought a belt which carried an extra 10 per cent discount instead of the make specified, but most of the executives of that type who haven't died have been pushed out of business until today we at least have men at the head of our firms who do want to keep their plants up-to-date. Then the word Economy takes on a somewhat different meaning, or I should say interpretation. That is, the word is somewhat more difficult to interpret from a practical standpoint. The very fact that a few mill presidents are not as practical, we will say, as some others, has caused the word Economy to be interpreted in many different ways. As long as there is a good profit, the man who is not quite so practical as some others can get by without putting out so much money and thinks he is showing Economy simply by not spending money. But when the profit dwindles to where it is a problem to stay out of the red—well that type of executive is usually the first to get in the red.

An illustration is a story told me by a salesman. Whether true or not, it at least helps to bring out my point. He and another salesman were competing for a contract. Salesman A had written his boss several times that he needed a new set of tires for his business automobile; the tread was all gone and the fabric was showing in spots. On a certain Friday he received a letter to be at a buyer's office at 11:00 A.M. Saturday. He started in ample time but was caught in a down-pour of rain which compelled him to slow down so much that he arrived at 10 minutes of 12:00 and met the buyer just starting out to lunch with his competitor, Salesmen B. The buyer explained that he had taken it for granted that Salesman A was not coming, etc.

Now, I remember, OLD-TIMER, *what that one particular sentence was you told me about Economy.*

O. K., JIM, spill it.

"Economy is the wise expenditure of money", and if that salesman had gotten a new set of tires—

Yes, JIM, you do finally catch on sometimes and therefore I would think you would finally wake up to the fact that we operating executives can learn a lot about manufacturing by studying (not just reading) the ads. Because a firm which puts out good money to pay for an advertisement must tell the truth or soon be found out. They are telling you the most important things about their products, and the best and most economical way to operate or handle them to get maximum efficiency. Also, by studying the operation of a machine as told in an advertisement, you can oftentimes get an idea which you can apply to your machine although it may not be the exact machine that the ad is describing. This reasoning also applies to the advertising of all the different supplies and prod-

ucts the textile industry uses in the necessary operation of their plants.

Yeah, like the time, quite a few years ago, when you wanted to buy one of the traveling cleaner systems for No. 2 spinning room, OLD-TIMER, *and you could not quite figure out how you would arrange the drains from the humidifiers until the overseer of spinning showed you a full page ad in* COTTON *with a photograph of a spinning room that showed spinning frames arranged exactly like ours, and right there in the photograph was shown the humidifier drains going right down to the creels.*

JIM, I am greatly impressed by the amount of belting advertising that I find in COTTON, and this brings to mind another instance that will illustrate the point I am talking about. Years ago, one of the textile graduates we started in the mill became assistant overseer of carding. The cards in that mill had to be pushed in order to get enough pounds to keep the spinning and weaving going. When our textile graduate took charge as assistant overseer, the overseer told him to devote most of his time to the cards in order to see that they turned out maximum production. At that time the mill was running only one shift and stopping an hour at noon, therefore the cards had to be started up twice daily.

The new assistant overseer was at the cards as soon as the wheels started turning morning and noon to see that the cards got started promptly. In helping to start the cards himself he noticed that he would have to hold the card belt on the tight pulley by hand longer than seemed necessary for the card cylinder to get up to maximum speed, and that oftentimes after he left a card to start up the next one the card belts would sometimes crawl off the tight pulley of the card he had left and he was compelled to return to that card—all of which was taking too much time to get the cards started up. He noticed that the card hands and grinders would take a handful of card strips and dip them in water in fire buckets then hold this handful of wet strips on the belt to make it start the card quicker.

As all carding overseers know, the wetting of these belts only made matters worse because it caused the belt to pick up more dust and fly and therefore caused the face of the belt to be very slick when dry and therefore slip on the card pulley.

The new assistant overseer realized that he had found something which was retarding card production but did not know what to do about it. The card grinders already had the belts as tight as "Dick's hat band", therefore he did not see that he could improve on the belt situation, but at home one night he was casually turning through the advertisements in his copy of COTTON received that day and noticed an advertisement which claimed for a belt that it would give more pulling surface contact and therefore give more production on spinning frames. Next day he suggested to the overseer that they buy one of these belts to try on a card.

Of course all up-to-date overseers and superintendents know the answer: they did not wait for the card belts to wear out to be replaced; they needed that card production badly, so they took off the belts and had them re-worked for other machines where they were entirely satisfactory and put the other belts on the cards, and the assistant overseer had a feather in his cap.

Yes, I know that this is a rather simple story of a condition which very likely does not exist in any up-to-date mill today, but it is a true report of an actual happening and therefore shows clearly that the buyers are not the only ones who can and do learn something by studying the advertisements.

Whoops, OLD-TIMER, *look over there on that next page and take a look at that opening room of that cotton mill and those long spinning frames. Gosh, I wonder how many spindles they do have—*

No, JIM, that is not a cotton mill advertisement, it is the advertisement of a machinery concern. You see, trends in advertising change just as trends in building machinery, automobiles and everything else change. A few years ago a machinery manufacturer could not get permission to show photos of the machinery in a mill in their advertising—

Sure, I know, OLD-TIMER, *that was when every guy thought he was the smartest manufacturer in the business and did not want any other manufacturer to see what he had in his mill.*

Exactly, JIM, and you can find many other illustrations of the broadminded way in which manufacturers are telling and showing the industry how and why they should keep ahead of the times.

Do you see what I see, OLD-TIMER? *Look at that next ad there. If that isn't the nearest thing to a loom battery I ever saw—and it's on a winder—*

It is the same principle, JIM. You see, as it says, the spindle is loaded (with a filling bobbin) started, stopped and unloaded, automatically. Which is nothing new to people who are more familiar with winders than you are.

I am not so sure of that, OLD-TIMER. *You know it was years and years after the automatic loom came out before a lot of mills ever saw one, and I am guessing that these winder people are going to have to educate the industry to their automatic filling winders just like the loom manufacturers had to educate the industry to their loom. For that matter, you will notice that now they are still having to tell and show the industry about their looms, and I guess that is a pretty good illustration of the truth of the slogan which says "It pays to advertise". What are you looking at now,* OLD-TIMER?

Well, I am looking at several advertisements explaining automatic temperature controls, recording instruments, etc., and I am just wondering if any of the men who represent these companies have ever taken the baths at Hot Springs, Arkansas—

Well, what in the Heck—

Just a minute, JIM. I've taken those baths and I saw so many things which it seemed to me should have automatic control that I wonder why they are not equipped with them. For example, the doctor gives you a chart which tells you the temperature of the water you must have, and this is taken by the attendant with a hand thermometer in a haphazard way, at some bath houses—then you are taken from your bath to a "pack room" which is supposed to be of a certain temperature, and I have noted a variation of as much as 9 degrees. Then you progress to No. 1 cooling room

which is supposed to be a certain and constant temperature which it usually is not; then to No. 2 cooling room which is supposed to be, so I was told, about 10 degrees cooler than the first, which it often is not—

Anyway, with several thousand of these baths, cooling rooms, etc., in the United States, it does look like —oh, well, anyway, JIM, I guess we had best confine our conversation to mills but a fellow can get ideas, you know, by studying advertisements.

O. K. OLD-TIMER, *here is one that says, "Money spent on modernizing machinery beyond the picker room can never earn its full return unless the preparation of the cotton is right, etc."*

Exactly right, JIM, a large number of mills found that out to their sorrow when they first installed long draft.

And remember, OLD-TIMER, *about how our spinning frame motors would get clogged up with lint and run as hot as fire crackers until we cleaned them out or would blow a fuse oftentimes before we did clean them out? Well, just look at those motor ads scattered throughout the magazine. They sure are fine pieces of work, and very efficient.*

Talking about efficiency, JIM, I guess these firms who manufacture mechanical handling and conveying equipment will soon have all of the handling problems solved so that we will not need any day help or elevators to handle anything. Just look at this layout for handling picker laps on an overhead trolley, and that one there for taking slasher beams to the weaver. Why didn't *you* think of some of these things?

Oh, yeah, well, you know I did think of the plan for putting an extra cylinder on the slasher when you told me about having so many looms on low pick goods that your slashers could not keep up, and now just look at this company that is offering a perfected one for sale.

Yes, I remember, JIM. I am frank to confess that I did not think so much of your idea right then, but we did get relief by building an inexpensive double head for our slashers which got us out of the hole.

And who would believe it?

Believe what, JIM?

That it takes so many factories to make enough card clothing. Darned if one firm hasn't got three factories, six repair shops, and distributing points all over the place. Turn to that next page and see for yourself—

Yes, I see, JIM, and you did not see the ad of another large clothing manufacturer, I suppose, which had the picture of the pretty girl in it—

Yes, I saw her all right, and now I'll ask you one, OLD-TIMER. *Remember keeping me up one night until long after our regular bed time telling me about the wonderful idea you had about soap for hotels—how you would save both the hotel and the soap manufacturer money and please the hotel guest at the same time, and you haven't said a darn word about the soap advertisements in* COTTON.

But I saw them, all right, JIM, and the first thought that came to my mind was Mr. Peet for whom I once worked. He was one of the executives and a large stockholder in a cotton mill out West. You know Mr. Peet built up a large soap business in Kansas City and his brother worked for me. It was this way, JIM: The property that the cotton mill firm purchased on which to build a cotton mill and other things, happened to have on it a 100-ton ice plant already in operation and Mr. Peet's brother was superintendent of that ice plant and so that is how it happened that I worked for one Mr. Peet and the other Mr. Peet worked for me.

Well, burn me down, OLD-TIMER, *if you haven't had some of the most gosh awful experiences which you have never told me about. Now tell me—*

Just hold your horses, JIM. We are supposed to be discussing advantages of studying advertisements and how operating executives can obtain manufacturing ideas by such study.

Sure, I know, OLD-TIMER, *and while I am looking*

(*Continued on page* 118)

To the Readers of the "Old-Timer" Page:

During the 19 years this page has been coming to you, OLD-TIMER does not recall that he ever asked a favor of his readers. He has offered prizes, both cash and subscriptions, which were not paid by the publishers but by OLD-TIMER himself, but never has he asked you to do him a favor. Therefore, believing that is a pretty fair record as friend to friend, he is going to ask you now for a personal favor which will not take but a few minutes of your time and which will be of inestimable value to OLD-TIMER.

The article you have just read is a discussion between OLD-TIMER and JIM about advertisements. But OLD-TIMER did not get to say half the things he wanted to say about advertisements and that is why he is asking a personal favor of you. He is seeking information and you readers are the only source of that information.

Regular readers of this page know that OLD-TIMER believes the advertisements are a great educational feature of the magazine and that all readers should study them certainly as much as they read and study the editorial matter. OLD-TIMER also knows that practical men who may not be designated as buyers read these advertisements and study them. Now, here is my request:

Go through this or any issue of COTTON and tell me which ad in it particularly caught your interest, and why. Did the man who wrote the ad tell you what you wanted to know or not?

Simply state in a few words what you think of these ads. Let it be complimentary or in criticism, just as it struck you when you read them. Be sure you state the issue and the page number of the advertisements you are talking about.

Will you do this for me—now? Address me: OLD-TIMER, care COTTON MAGAZINE, 1020 Grant Building, Atlanta, Ga.

Thank you.

CLINTON

STARCHES

FOR ALL TEXTILE PURPOSES

QUALITY ▲ SERVICE

CLINTON COMPANY

CLINTON, IOWA

Cutler

SAK TAPE

INCREASED FACILITIES FOR SERVING SOUTHERN MILLS

In response to the growing demand for Cutler Tape (the ORIGINAL power-saving spinning tape) it is a pleasure to announce that the following agents are now at your service in the South:

M. Bradford Hodges.....161 Spring St. N.W., Atlanta, Ga.
Jesse Hodges.....1336 East Morehead St., Charlotte, N. C.
Byrd Miller.....Woodside Building, Greenville, S. C.

ROGER W. CUTLER

BOSTON, MASS. GREENVILLE, S. C.

HOW OTHER MEN MANAGE

Reclothing Cards

This man disagrees with "Contributor No. 7167". He says that cards should be reclothed by the card grinders—and gives his own method for doing it.

WE INVITE our readers to make use of this department for the discussion of any and all problems arising in the mill or finishing plant. Questions, answers or letters need not conform to any particular style and will be properly edited before publishing.

EDITOR COTTON:

I wish to comment on the letter written by "CONTRIBUTOR NO. 7167", which appeared on page 152 of the February 1941 issue of COTTON, in which this man insists that the mill should have an expert from the card clothing manufacturer's plant to reclothe cards.

My experience and opinion on this subject of reclothing cards is just the reverse of that stated by "CONTRIBUTOR NO. 7167".

It is far less expensive and just as satisfactory for the men that are employed by the mill to do the clothing of the cards. Any good card grinder should be able to clothe a card properly. It will pay any mill with 50 or more cards to have its own clothing machine and let the grinders do the clothing.

Show me a grinder that can and does clothe cards and I can show you a man that is more valuable to the company, and one that feels more responsible for the upkeep of his job than the man that cannot or is not allowed to clothe cards.

One of the worse drawbacks that the mills have had to overcome is old idea that some jobs in the mill are a great mystery, and under no circumstances should a man be trained or allowed to know anything above the minimum necessary to run his job.

No Mystery in Clothing Card

Why make a mystery or "booger" out of clothing a card? It is a fairly simple procedure after all and if given the proper encouragement the men will all want to learn the method and will take real personal pride in a clothing job well done. Any man sufficiently skilled, with enough mechanical ability, and level headed enough to be allowed to grind cards, can also be depended upon to clothe cards if properly instructed and trained in the method of doing so. If he does not have the ability to take such training, he surely does not have the ability to grind cards. His every day work in grinding, setting and adjusting cards requires just as high a degree of skill and ability as is required to properly clothe cards. Don't you think that he will take more interest and feel more pride in a card that is turning out good work when he had clothed the card, ground and set it, and is directly and personally responsible for good work that the card is making?

"CONTRIBUTOR NO. 7167" spoke in favor of the clothing manufacturer's expert to clothe cards, and I'm speaking for the mill men that do this. The roughest clothing I ever have ground was behind a set of machine erectors. The only advantage they had over the grinders was that they put on more sets of clothing in a day. Any grinder I ever saw clothe a card put on smoother and more level clothing than any outsider. The only new clothing I ever saw broken was by a machine erector.

Removes Loose Clothing at Once

When redrawing clothing I have seen a few breaks, but any clothing that will not stand the proper tension is not fit to be used and should be discarded and not under any circumstances be patched or pieced and used. To get good carding, close settings must be made and the only close and accurate settings that can be made are on good clothing, with the proper tension used on application. Loose clothing should be taken off at once.

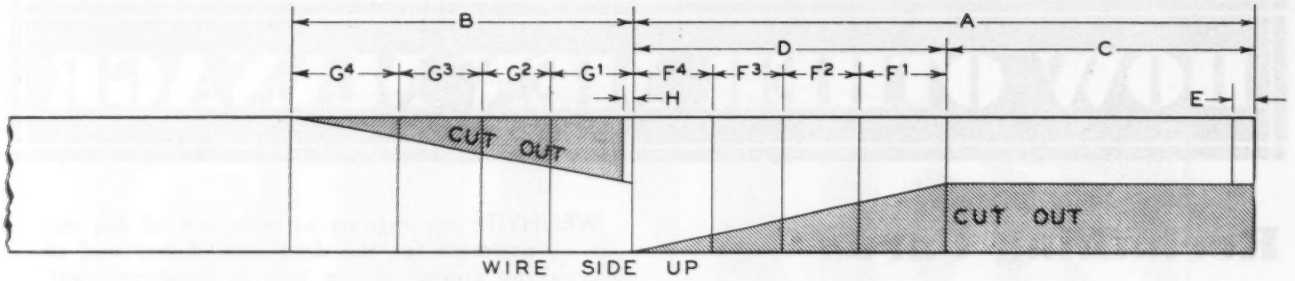
Another advantage of the grinders doing the clothing is that when a card needs clothing it needs it right then, not later. The clothing is either good or bad. When bad it should be removed at once and replaced. The mill having its own machine and trained men ready to do the work will find no need of letting a card stand for several days to be reclothed. When the job needs doing the card is stopped, torn down, old clothing removed and new put on, then the card is ground, reassembled and set and is back in production often before a clother and his machine can get to the mill.

Clothing the Card

I have never seen detailed information for clothing a card published; this may be just something that I have missed but I would like to outline the method given to me by one of the old-timers, and see if it meets the approval of the readers of this department. Any discussion or criticism will be welcome and appreciated for this is the best method of increasing our knowledge of our jobs and the problems involved.

I will not go into details of getting the card ready for clothing as most men have their own ideas on this. However, remove the parts that will be in the way, peg up the holes left by the tacks in the old clothing, and get the cylinder or doffer in proper shape to apply the new clothing.

Let the new clothing remain in the room near the card to be reclothed over night to reach the same temperature. Provide a suitable container to hold the clothing when unrolled, and ways and means of applying stove polish if this is used, and some means of rubbing up the clothing as applied.



Wire points this way when put on from back; other way when put on from front. Always start at left and work to right

Now refer to the sketch. With the clothing in the position indicated and making sure that you are starting at the proper end of it, mark off "A" which is six inches less than the circumference of the doffer or cylinder. Divide this length in half or rather in two equal parts "C" and "D". Divide "D" into four equal parts "F1", "F2", "F3" and "F4", for the cylinder or three equal parts for the doffer. Mark off the taper by the drawing crossing one course of the wire in each of the sections "F1"-"F2", etc. Draw the wire from the line and cut the taper, starting at the edge of the clothing and going to the middle; when you reach the middle split the length "C" on out to the end and you have the first taper ready to apply.

Draw enough wire from the end to tack and stretch on at about 200 pounds tension. Mark the distance "E" (six inches from end) over the second row of pegs and release tension; draw wire and tack at this point after re-applying the tension. This first six inches is cut off and discarded when you get around the cylinder and start to put on the second taper. As you apply the first taper, gradually increase the tension to about 375 pounds as the taper gets wider.

Start the second taper "B" beginning at the point the first taper ends, leaving a small place "H" with the wire pulled to tack. The second taper is divided into the same number of spaces as the first taper "G1", "G2", "G3", "G4", Taper out from the center of the clothing and on the opposite side from the first taper. Start the second taper at about 250 pounds tension and increase as the taper widens to about 375 pounds. After the second taper is in place increase the tension to about 450 pounds and wind on the clothing across the cylinder.

Do not let the traverse motion lay the clothing so close that some of it overlaps. It is better to leave just a very small space between the layers of clothing and keep them knocked up with a clothing hammer fixed for the purpose of a piece of hardwood flooring will serve nicely.

The finishing tapers are cut to fit as you run out. Dot not forget that they are reversed to the starting tapers, otherwise they are the same and are laid off in the same way and to the same dimensions.

I have seen many cards clothed by this method and all of them have produced good work and are nice examples of proper card clothing. If the professional clothers can do a better job or do it any cheaper I am yet to be convinced of the fact.

CONTRIBUTOR No. 7207

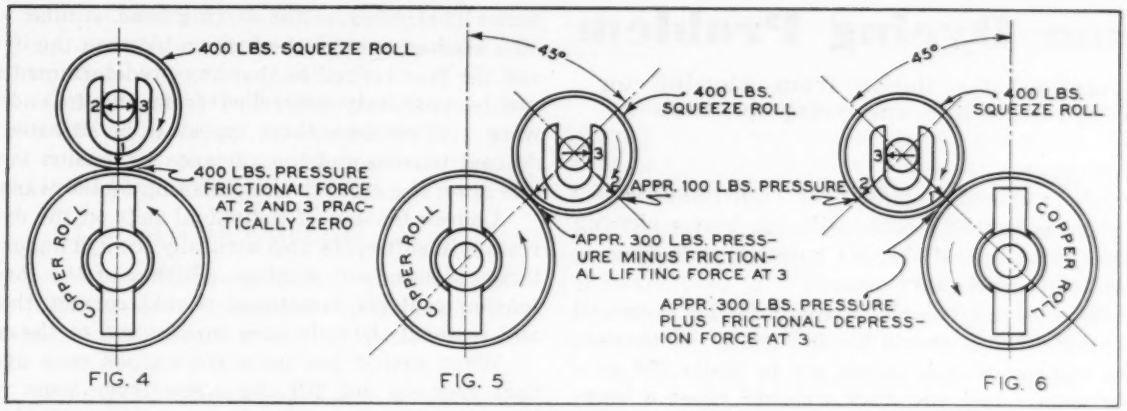
Position of Slasher Squeeze Roll (*Conclusion*)

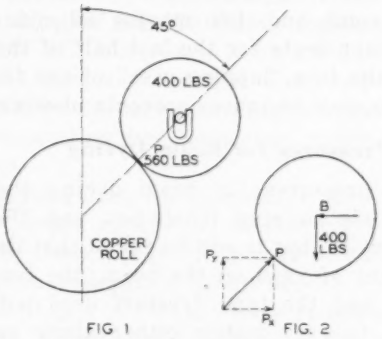
READERS who have been following the arguments advanced pro and con relative to the increased or decreased weight of the squeeze roll on slashers when it is located somewhat to the front or back of (instead of directly over) the copper roll will be interested in this practical solution offered by "A. G. M.". Readers who wish to review or pick up the exchange of opinions may read pages 110 and 112 of the August 1939 issue, page 118 of the June 1940 issue, and page 133 of the October 1940 issue.

The whole thing started when IVAR MOBERG submitted the accompanying sketches (See Figs. 4, 5 and 6), saying that the pressure at the nip of the squeeze roll and copper roll is less when the squeeze roll is 45 degrees off the vertical, and when "A. G. M." (and others) said that he was wrong, that the pressure at the nip is more when the roll is off center (See Figs. 1 and 2).

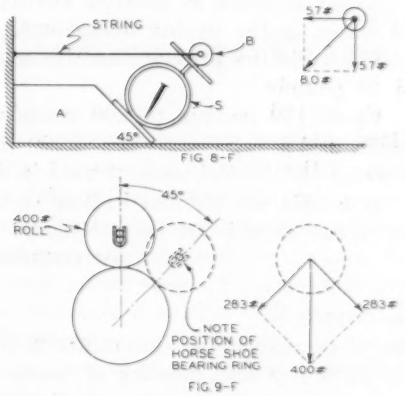
This sort of thing couldn't go on forever in the HOW OTHER MEN MANAGE DEPARTMENT, though indications were that it had a good chance to do so, and the editors requested a practical solution and begged someone to rig up a contraption to prove the problem in a practical manner.

Good old "A. G. M." has done this, and it is illustrated in Fig. 8-F. He writes: "A simple arrangement of a roll and spring scale was devised to provide definite proof of the theory as developed [that the top squeeze roll off center of the copper roll places more weight at the nip than when the roll rides directly on the copper roll]. These were set up as shown in Fig. 8-F. "A" is a backstop with one face 45 degrees to the horizontal, providing a support for the scale when measuring the angular pressure. "B" is a roller taken from a section of roller conveyors. This was ideal in that it had a roller-bearing axis to reduce the element of friction to a minimum. "S" is an ordinary spring scale normally used for postal weighings. With the scale inclined at 45 degrees it can be assumed that its platen represents the tangents to the bottom roll at the point of contact with the 400-pound squeeze roll. When loaded as shown in Fig. 8-F, the scale should then measure the pressure exerted at the nip, which in the





The figure numbers in this article are taken from past issues of the magazine, in which articles appeared on this subject, and do not run consecutively.



case of the conveyor roller amounted to 7.5 pounds. The backstop "A" was then removed and the roll weighed with the string slack and the scale in normal position. The weight of the conveyor roller was 5.7 pounds.

"According to the theory of my previous letter, the nip pressure, or scale reading at 45 degrees to the vertical should be the component of horizontal and vertical forces of 5.7 pounds each or 8.0 pounds. Considering the crude equipment used and the friction involved, I believe that this is a reasonable practical demonstration theory.

"In answer to those disagreeing with the principle and proof, I will say that their interpretation is correct [that the roll produces less pressure at the nip when off center] *if* the 400-pound roll is held in a horseshoe bearing ring, but with its *axis kept perpendicular* to the tangent at the point of contact with the bottom roll, as shown in Fig. 9-F. However, if none of the 400-pound roll weight is absorbed in the bearing, by virtue of the horseshoe ring, the horizontal force "B" (Fig. 2) comes into play and combined with the weight, results in the increased component nip pressure."

Unless someone else wishes to open the matter, the editors will consider the proof of "A. G. M." conclusive. We still wonder which will hurt the most: to mash your finger between the squeeze roll while it is on top of the copper roll, or while it is at an angle of forty-five degrees to the copper roll.

Job Eliminated

For many years a certain Pennsylvania textile mill had been making its own yarn boxes. Recently, the purchasing agent of the mill discovered that he could buy the cases outside for considerably less.

The decision to buy the yarn boxes eliminated the jobs of three box-makers. The foreman talked to the mill superintendent about finding work for them in another department. This brought to the superintendent's mind the fact that in a few weeks the new carbonizing room, which the company was fitting up, would be put in operation. The foreman thought they could be trained for the new jobs if pains were taken to give them extra attention.

So the superintendent agreed to give the box-makers the carbonizing job.

The foreman then suggested that inasmuch as the new job would not start for three weeks, he could use the box-makers to very good advantage for that period in doing a thorough repair job on all the boxes on hand.

1. Do you consider it good management on the part of the foreman to suggest that he "make" work for the box-makers during the period before the new job was ready?

2. Inasmuch as the job in the carbonizing room would be under far less favorable working conditions than the box-makers had been used to, what steps should their foreman take so that they would appreciate the transfer rather than feel they had been "shoved off" onto a disagreeable job?

—"Management Information", Elliott Service Co., Inc.

Beam Dyeing Problem

Preventing dye liquor from blowing on through beam in beam dyeing operation . .

EDITOR COTTON:

I wish to offer an opinion for "CONTRIBUTOR NO. 7183", who is having trouble with his beams blowing in beam dyeing operations, his question appearing on page 148 of the February issue.

1. Most of the trouble in beam dyeing is caused in warping. There should be uniformity of tension, and the number of ends should not be under 300 on a 54-inch beam. Just one slack end will cause a blow-out.

2. Avoid as much as possible shrinking from hot to cold water in the dyeing operations.

3. The resisting pressure on the beam should not exceed 30 pounds.

4. From 150 pounds to 200 pounds of yarn for vat colors, and a full beam for sulphur and direct colors, is about the correct amount used in dyeing beams.

5. If beams are wet out in boiling water, a penetrating agent should not be necessary.

CONTRIBUTOR NO. 7184

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EDITOR COTTON:

This is in answer to "CONTRIBUTOR NO. 7183" who reports difficulty with blowing of beams in the dyeing operation (dye liquor blowing on through yarn) and asks for suggestions on overcoming this trouble as well as the customary poundage dyed on a beam, the pressure usually used, etc. His question appeared on page 148 of the February issue.

Uneven Tension

Blowing of beams while dyeing is not an uncommon occurrence and the cause may be traced to several faults. Uneven tension on the yarn from the start to the finishing of warping, uneven tension between individual ends on the beam, a small number of ends on the dye beam, and too high pressure in the dyeing machine are the most common mechanical faults. Blowing will also occur in highly alkaline baths, low temperature processes, and in salting.

There are several methods of eliminating variables in tension from the starting to the finishing of the warping. On those type warpers where the dye beam rests on and is driven by a revolving cylinder, one type warper has a ratchet let-off attachment that lifts the dye beam away from the driving cylinder at a predetermined rate as the yarn is built up on the dye beam, and results in a positive tension control from end to end of the warp.

Another type has weights on the back end of the extended arms that hold the dye beam on the warper, and as the dye beam fills with yarn these weights lift the dye beam off the driving cylinder of the warper and give a fairly even tension from end to end.

Still another type in which the dye beam is positively driven through the head of the dye beam has a friction roll pulling the yarn from the creel and a series of clutches on the driving head, similar to those on a slasher, control the tension between the dye beam and the friction roll so that any predetermined tension can be positively controlled from end to end of the warp. All of these three types can be adjusted to any desired tension and the variance in tension is negligible from the start to the finishing of the warp.

Uneven tension of individual ends on the dye beam results in soft spots and naturally the dye liquor surges through these soft sections. Either of the three type tension controls mentioned should correct this fault and is about the only sure cure known to the writer.

When such a few ends are warped on a dye beam that they do not fill the space from beam head to beam head firmly, it is often possible to eliminate the soft spots by warping half the beam in one set of dents on the comb and then moving all ends to the previously vacant dents for the last half of the warping. This results in a "lapping over" of the first soft section, and in most instances prevents blowing.

Pressures for Beam Dyeing

Normally, pressures for beam dyeing should be about 25 pounds running inside-out, and 35-pounds running outside-in, but it will be found that the count of yarn, weight of yarn on the beam, the tension of the warping, and the type dyestuff used will cause these figures to vary widely either above or below these pressures. Most beam dyeing machines have a maximum of 55-60 pounds pressure. In all cases it is necessary to have sufficient pressure to assure a good flow of liquor from the kier overflow line when running inside-out, to be positive of a good circulation. It is also a good idea to have a by-pass line between the intake and exhaust line of the pump, with a valve in this line to control the pressure to any desired point.

Alkalies to Tighten Yarn

The introduction of alkalies, particularly caustic soda, causes the yarn on the dye beam to tighten, and alkalies consequently should be added very slowly to the dye machine. Changing from a hot to a cold liquor process produces the same tightening effect, and in both instances a by-pass is very helpful in eliminating blowing as the pressure necessary for good circulation can be slowly built up by gradually closing the valve in the by-pass line.

Warping Low and Ply Numbers

Different counts of yarns, and varying numbers of ends and lengths of warps, will also require a difference in tension when warping the dyebeam. Counts of 12s singles and below and all 2-ply yarns should be warped tighter than normal tensions. The same is true of warps with a small number of ends, short yardage warps, and low total weight warps. These variables are generally determined by conditions in the individual plants.

Pounds per Beam

The poundage per beam will be governed by the type warping and dyeing equipment in use. Under the best of conditions it is practical, and it is being done, to dye direct colors up to 350-400 pounds per beam, sulphur colors as high as 325 pounds per beam, and

Other answers to this question appeared on page 112 of the April 1941 issue.

vat and naphthol colors up to 275 pounds per beam. Within these type colors there will be a variable of weight downward, depending on the depth of shade, the count of yarn and the individual colors and processes involved. Under less favorable warping and dyeing conditions the poundage per beam should be decreased to the point where good dyeings are secured.

Careful With Chemicals

All chemical assistants used in beam dyebaths should be stable under the conditions of the individual plants, as a breaking down of any of these products will result in their being filtered out by the yarn on the beam, sometimes to the extent of a film formation on the yarn that resists circulation and results in a pressure sufficiently high enough to cause either blowing or collapse of the dye beam. Penetrants that wet too quickly will sometimes cause an uneven "setting-up" of the yarn and result in hard and soft sections that may blow during the dyeing process. Consequently, a slow wetting but completely stable penetrant is preferable.

Minimum quantities of common salt that will assure the proper exhaustion of the dyebath should be used at all times. The salt should be added slowly to the machine and where heavy shades require rather high percentages of salt it will be found advantageous to dissolve the salt before adding to the machine.

In some instances it may prove beneficial to wrap the beam barrel with several laps of burlap before warping the warp onto the beam, though this is not necessary with good warping.

It is very definitely true that where poor warping and dyeing equipment is involved the dyer has two strikes on him before starting out, and his only salvation is in varying the weight of yarn, number of ends, length of warps and process, methods to secure the best results, though not necessarily good results, with the available equipment.

CONTRIBUTOR No. 7187

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EDITOR COTTON:

I have studied the questions of "CONTRIBUTOR No. 7183" on page 148 of February COTTON, with reference to the causes of "blowing beams" in beam dyeing. He has asked questions that we would like to know the answers to ourselves, but I will try to give you information on what we have found helpful in beam dyeing.

We are at present dyeing approximately 80,000 pounds of yarn a week on 8 horizontal revolving beam dyeing machines, using the Barber-Colman system of warping. We are successfully dyeing beams weighing a maximum of 390 pounds on 54-inch beams and a minimum of 95 pounds on 54-inch beams.

We overcame the beams channeling by varying the density of the yarn on the beams. We found when the dye liquor blows the yarn the beam was not properly wound or the dyestuff not thoroughly dissolved in the mixing tank before penetrating the beam.

We are successfully dyeing, using up to 8 pounds of dyestuff per 100 pounds of yarn. In most cases we are dividing the dyestuff in four parts, thereby eliminating the dyestuff being forced through the yarn with such force that it would cause the beam to channel.

One other place we found that caused our beams to channel is in blowing out the beams with air after dyeing. We let the air into the beams slowly instead of having the operator turn the valve on as fast as possible.

The question is asked about the best penetrant to use to prevent blowing. We find that any high grade penetrant used in wetting out the beams is satisfactory, provided the penetrant is not drained and left to be mixed in with the liquor before dyeing.

We are using 23 pounds pressure on all size beams.

CONTRIBUTOR No. 7192

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Hard Licker-in Wire

EDITOR COTTON:

In his question on page 148 of the February 1941 issue of COTTON, "CONTRIBUTOR No. 7169" explains that since changing to hard point (and somewhat longer) licker-in wire he is having trouble with hard ends or thick places coming through on the laps, which snatch in and tear up screens. He also has trouble with mote knife brackets breaking. He did not have this trouble before using the hard point, longer wire.

This man is not by himself in experiencing trouble with the new hard point licker-in wire. With the old type wire we formerly set our mote knives as close as possible, with the edge or point of the knives pointing into the licker-in. However, if this is done with the hardened point licker-in wire, we run into trouble such as broken mote knife brackets, damaged lickers-in and sprung mote knives.

This can be overcome with a change in the setting of the mote knife, and good results can be obtained when the hard wire is used.

Instead of setting the mote knives so that when they are pressed into the licker-in the point of the wire will hit the sharp edge of the mote knife, set them so that when they are pressed toward the licker-in the point of the wire will strike the beveled edge of the mote knife. This setting will give a good quality of work and will also prevent broken mote knife brackets.

For the other trouble this contributor mentioned—jerking-in of thick places or lumps and the tearing up of his screens, I believe he will have to look to other places to correct the trouble.

He should first check his picker laps carefully for thick and thin places. If possible, he should run a sample lap off of each picker on a lap testing machine because this machine will show up things that will not be noticed by running a lap off in front of a window.

If the laps are in satisfactory condition, he should inspect the feed roll shafts and feed roll bearings on all cards. Often worn feed roll bearings or worn feed roll shafts are worn badly enough to allow portions of a lap to be jerked into the card, thus damaging the screen and often times knocking down the mote knives and breaking mote knife brackets.

CONTRIBUTOR No. 7209

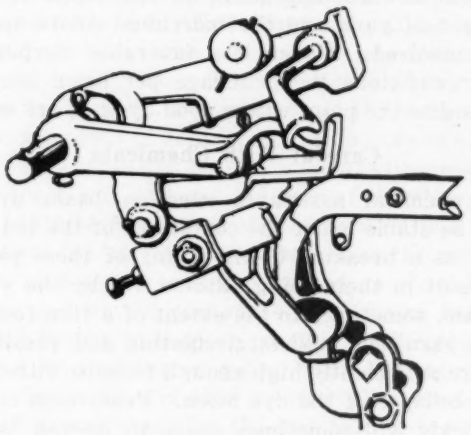
Setting the Midget and Shuttle Feelers

COTTON received two inquiries from a mill man, who requested that the questions be submitted to Ivar Moberg for an opinion. The questions were: (1) How should the shuttle feeler (with thread cutter, not the Stafford cutter) be timed with the Midget feeler? (2) How should the shuttle feeler be set on the cross shaft (setscrewed), when the shuttle with empty bobbin is on the feeler side, and the loom is on the front center? These questions were sent to Mr. Moberg, who replied at length as follows:

Answering Question No. 1, the shuttle feeler with the thread cutter is not timed with the Midget feeler. These are two separate devices and both are controlled by the proper setting of the filling stop motion cam.

The Midget feeler should be set before the shuttle feeler with thread cutter, or the Draper-Roper cutter. To set the Midget feeler proceed as follows: With an empty bobbin in the shuttle and the latter picked to the plain end of the loom, adjust the height of the feeler so that it will strike the bobbin a trifle above the center when the lay is moved to front center. Using a square, adjust the feeler case on the stand so that it will be at right angle to the lay, and at the same time move the stand laterally until the outside of the feeler case lines up with the center of the middle ring on the bobbin, in a fully boxed shuttle. With lay at extreme front center, advance or retard the feeler case on the stand until there is at least 1/16-inch play between the slot in the case and the feeler wire, when the latter has made a full length side slip on the bobbin. Again check the square of the feeler to the lay, the alignment of the feeler case with the middle ring of the bobbin. the height of the feeler above the center of the bobbin, the level of the feeler case, and the forward position of the feeler on the stand. If all these adjustments are correct do not alter any of them. Next, set the lifting lever so that it will over-ride the trip lever by ⅛-inch and start its forward movement also ⅛-inch back of the trip lever. Now and not before, insert the wire connection between the feeler and trip lever, adjusting its length so that there will be ⅛-inch to 3/16-inch clearance between the end of the wire connection and the feeler wire when the latter is in normal position. See that the feeler and trip lever move very freely and apply sparingly a light oil of good lubricating quality inside the case and on the trip lever. End of wire connection against the feeler must be smooth with edges rounded off.

With the adjustments described previously properly executed, the feeler will work to perfection and any altering of the adjustment will make the feeler less effective. If the feeler should miss with these adjustments do not alter any of them, for in that case, the feeler is caused to miss by other faulty conditions, such as, for instance, rough bobbins, improperly built bunch, shuttle rebounding in the box, shuttle rising in the box, play in rocker shaft, etc. Under no condition permit bending of feeler wire, which many fixers have a habit of doing.



The setting of the shuttle feeler cutter comes next. To set this cutter proceed as follows: First, turn the loom over and pick the shuttle from the plain to the battery side. With the empty bobbin in the shuttle the feeler will register transfer on the next pick and consequently will set the transfer motion for action. Remove the latch depressor and the entire cutter assembly from the loom. Place the stand of the cutter assembly in a vise, taking care that the outside of the stand is in exact vertical position. Moving the cutter into cutting position, the upper edge of the shuttle feeler should be in level or, in other words, be in right angle to the outside of the stand. If less than in right angle file the stops on the stand and shuttle feeler until the position is correct. If shuttle feeler goes beyond the 90-degree angle the stops are overfiled and must be built up by welding, or a new shuttle feeler must be used. It is very important that the shuttle feeler is in 90 degrees angle to the stand when in cutting position. Now, replace the cutter assembly in the loom and adjust it so that the shuttle feeler, in horizontal position, just clears the box plate. Bolt it temporarily in this position. Raise latch finger against the bunter by hand and turn the loom over to the extreme front center. Adjust the length of the latch finger until transferer comes down to within 1/16-inch of the rings on a fully transferred bobbin in the shuttle. Move the loom back and apply the latch depressor. Turn the latch depressor, in its conical recess in the shuttle feeler, until it has raised the latch finger in proper height for bunter on the lay and tighten it up in this position.

During this adjustment, the shuttle feeler must, of course, be in cutting position. Next, move the lay until the bunter contacts the latch finger and see that the cutter is as close to the box back as possible, without touching it. If too close, move shuttle feeler stand back and readjust the latch depressor to hold the latch finger in proper height. Move lay back, open the cutter and place a thread in it. Move the lay forward again until the bunter contacts the latch finger at which point the cutter should have completely severed the thread, if correctly adjusted. Move lay back and push the shuttle out of the box

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so the tip will strike the shuttle feeler when the lay is moved forward. The transferring action should now be revoked by depression of the latch finger below the bunter. This is checking for revocation. Check for protection by pushing the shuttle farther out of the box until it barely lifts the dagger over the frogs and move lay to extreme forward position, moving the lay slowly and checking the freedom of the shuttle feeler from time to time as the lay is moved forward. At the extreme forward position of the lay the shuttle feeler must not bind but be free to go still farther back so that it will not be broken should this condition occur when the loom is running.

Seting Feeler on Cross Shaft

In reference to Question No. 2—as to setting the shuttle feeler on the cross shaft—it is not just clear what the inquirer means. I presume that he means the setting of the feeler finger on the starting rod. If my presumption is correct, proceed as follows: With shuttle at the battery side loosen the setscrews in the feeler finger and push the shuttle feeler into cutting position. Tighten up one of the setscrews just enough to hold the shuttle feeler in this position temporarily. The feeler finger is now much too high so the setscrew is loosened slowly until the shuttle feeler begins to drop back of its own weight plus the pulling down action of the starting rod spring. The shuttle feeler should be allowed to drop to within ½-inch of its extreme back position at which point the setscrews should be tightened firmly. Pull the feeler slide back by hand until the trip lever rests against the lifting lever, which will bring the shuttle feeler into cutting position and see that it is firmly, but without undue pressure, held up against the stops. Turn the loom over one pick which will bring the shuttle feeler into normal position and see that it drops back far enough to bring the filling knife pin below the filling knife trip. Otherwise the cutter will not be opened at the next transfer and consequently will not cut the filling.

Trimming the Budget

The reduced scale of operations in a certain company made it necessary for the maintenance shop foreman to let several men go. Among the men slated to go was Andy Doran, a planer hand of many years' service in the shop.

The foreman had decided to combine the planer job with the boring mill job. He had selected the boring mill operator as the man to keep. He was younger and stronger and the planer job was a heavy job. Andy, although he was not as strong physically as he formerly had been, was still very alert mentally. The foreman expressed regret to the superintendent at having to put Andy Doran on the list.

The superintendent told the foreman that he was very much bothered by the amount of spoiled work in several of the production departments. So they had a talk with Andy about the possibility of creating a job as "trouble-shooter," providing he felt that he could handle it.

For several weeks the superintendent's assistant spent as much time with Andy as might have been required to do the trouble-shooting job himself. Andy had a pretty good shop background, a keen mind, lots of imagination, and he had the good will of everybody in the production department. Soon he began to show results and in a few months was much more valuable to the company as a trouble-shooter than he had ever been as a planer hand.

—"Management Information", Elliott Service Co., Inc.

An Old-Timer Says—

(*Continued from page* 109)

at this layout of a picker room I'll ask you another question. Why doesn't some picker builder or a practical manufacturer devise a means of making a larger picker lap? Yes, I know the first objection you will raise—a larger lap would be so much harder to handle—would make more lap waste, etc., but there is where these conveyor people would come in.

Not a bad idea, JIM, and my suggestion to you is that now that you have had the idea, why don't you do something about it? And following your lead probably someone will show us how to use a larger card and drawing can. I remember you did make your card cans hold considerably more sliver by changing a gear in the turn table, I believe it was, and we were all surprised at the number of extra card cans it gave us. Have you run across an advertisement by a bolt manufacturer in this issue of COTTON, JIM?

No, I believe not, OLD-TIMER, *but I am only about half way through the advertising pages. Why do you ask about a bolt manufacturer?*

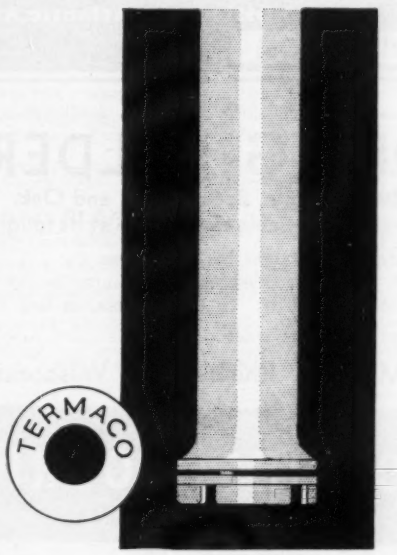
Because, JIM, I do not understand why mills do not have their supply departments order bolts of higher breaking strength. We all work our heads off trying to make yarn of higher breaking strength because we know such yarns will increase production. Then we make out an order for bolts—just bolts—we do have to state the size and length but that is all we do specify, and when did you ever hear of an overseer or superintendent saying that one make of bolt had a higher tensile strength than another make? Most overseers and superintendents just requisition for bolts and put them into crank shaft boxes, pick levers, parallel shoes and all other places without ever knowing whether one bolt is stronger than another.

(For the readers' information, OLD-TIMER pays a few cents more per bolt for bolts which have several times the tensile strength of ordinary bolts. Any bolt manufacturer can supply the higher strength bolt and also furnish bolts on which the nuts fit the threads closely which is a very important point.)

And there are still many mills using common flat washers, JIM—

Jim is sound asleep again, fellows, so I suppose the conversation is not interesting enough to keep him awake. Maybe you, too, Mr. Reader, are getting tired, so before you go to sleep, OLD-TIMER asks that you read the letter addressed to you that appears on page 109. Good Night.

Character



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Continued on Page 122

Continued From Page 121

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716. DOW INDUSTRIAL CHEMICALS AND DYES—General catalogue listing Dow products used in textile industry for many purposes including printing, finishing, dyeing and general treatments.—DOW CHEMICAL CO., Midland, Mich.

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KNITTING . . .

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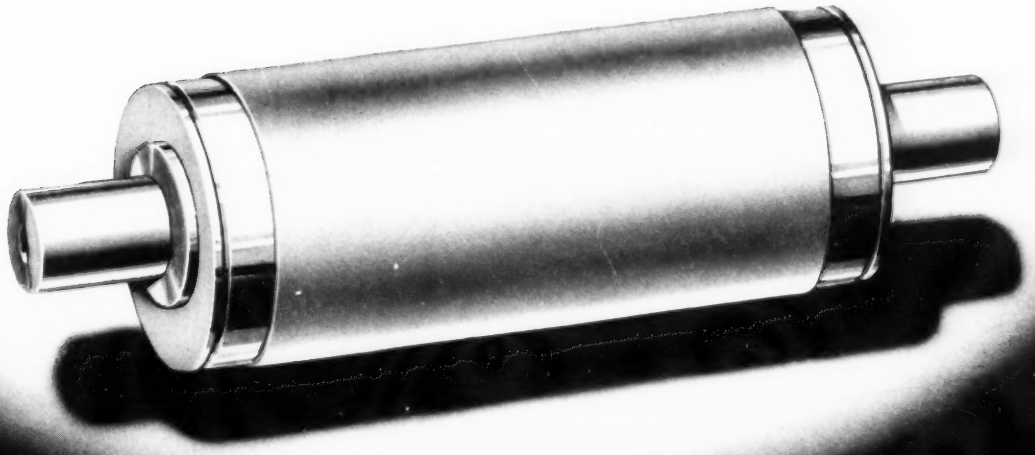

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KNITTING SECTION

Full-Fashioned Management

By Henry Britt

• This is the second of a series of articles on management in full-fashioned hosiery mills, though many of the comments will pertain to circular management also. The first installment appeared in the April issue. The series is written by a prominent executive, who requested that we not disclose his identity, hence the pen name. This second article covers design of hosiery and following installments will take up other phases of mill management.

OF THE MANY PROBLEMS that confront a hosiery mill manager, styling of goods, which includes yarn specifications and calculation of courses and lengths, constitutes a side of the picture requiring both care and thought. A definite and logical method of approach is important and though no special mechanical skill is necessary, a clear conception of the limitations and possibilities of the full-fashioned machine is desirable. It is the purpose of this chapter on mill management to set forth some of the more important factors involved in this work.

Silk for Various Gauge Machines

We know, first of all, that certain gauges of knitting machines are more adaptable to a definite size range of yarns than others, each gauge having a yarn range quite broad in itself and, of course, able to overlap one or two gauges in either direction from the one in question. For example, a three-thread silk yarn is exceedingly satisfactory for forty-five gauge machines, nevertheless, any size from two- to six-thread is practical. Even heavier yarns have been knitted satisfactorily on this gauge, it being understood that we are limiting our discussion to main yarns for the present.

Starting with thirty-nine gauge, it is possible to knit three-thread, although not advisable, while the range may run up to fourteen-thread if necessary. We shall omit forty-five and forty-eight gauge machines, first because we have already mentioned the one, and the latter is not considered seriously today in the competitive field. This gauge has not found favor in the eyes of mill men in recent years. On fifty-one gauge machines, two- and three-thread are most advisable but here again even four-thread is entirely within reason. Nevertheless, it will be noted that as we approach the finer gauges the band is narrowed down considerably until we reach the extreme, such as fifty-seven to sixty-six gauge. Here the limitation of size or denier suitable for knitting is exceedingly narrow, confined chiefly to two-thread and finer. However, the most popular gauge today is forty-five, chiefly because of its many possibilities and fine appearance in handling.

The present trend in hosiery is toward sheerer fabrics and there is no doubt that even finer counts than two-thread silk or thirty denier nylon would be in vogue, if such would be practical or available. This may well be the case in the near future, as the last named fiber may open possibilities heretofore not realized. It is not to be forgotten, however, that fashion dictates do not always run along the lines of reasonable thinking, as often unforeseen conditions and circumstances may arise and change the picture overnight. Many an industry has been brought to a standstill because of this quirk in women's fashions, until such time as they (the industries) could adjust themselves to new conditions. More than one industry has gone out of existence altogether because of its inability to cope with a new situation. Who knows but that some day heavy hosiery may again be popular—for fashion, like history, has a habit of repeating itself.

Designing Hosiery

One of the major problems in styling full-fashioned hosiery is the calculation of needles and courses in each portion of the

stocking. If, as is usually the case, the person responsible for designing has access to specifications of previously knitted styles, the planning of new styles will be greatly facilitated. It is from this source generally that new styles are developed, though this is not absolutely essential.

Much of the work of style changing can be made easier if certain fundamental rules are observed when setting up specifications. A given number of narrowings if kept standard on the same gauge, together with uniform needle widths, can be a great aid to the fixer responsible for doing the work, not to mention the greater flexibility of the machine for quick style changes. As each plant generally sets up standards of its own, a resulting conglomeration of specifications exists, with perhaps few definite or visible differences in any of them. There is little or no need of variation upon these two points, except in the case of outsize or slim widths in such plants that cater to custom or personalized fit.

Details of Design

Such differences as one or two, more or less, narrowings or four needles variation in the instep cannot be detected even by the trained eye, much less by the ultimate buyer of hosiery. These differences can come about, over a period of time, by the introduction of competitive styles for duplication, while pressure is brought to bear upon the knitting department to produce an exact likeness of the sample. It would be well for every mill man to take stock of his styles occasionally and eliminate all these slight differences in construction, which would result in a more efficient method of manufacture. There are other points besides those mentioned that should be standardized. Welt and flare lengths, the number of steps in the heel and sole curves as well as distances between narrowings could be made uniform, at least on the same gauge. All this will aid in lowering the maintenance cost of styling.

In setting up specifications for silk hosiery, at least a half inch must be permitted for take-up of the welt between greige lengths and finished lengths. This is not shrinkage, as silk does not generally shrink in dyeing, but is take-up in the stitch formation itself, because there is no way to pull the stitches out to their full length while boarding. This point can best be illustrated when comparing the welt with the heel. While the welt generally takes up a half inch in boarding, the heel, (silk only), will elongate about a half inch over its greige length. With the removal of from 20 to 22 per cent gum in the boil-off, and the stretch that is given the heel in boarding, this gain in length will be noticed in an all silk heel.

Variables in Design

It is a well established fact that total courses cannot be easily predetermined by calculation in a given style because of the many variable factors involved in knitting and finishing hosiery. Some of these variables are as follows; nature of silk, type of knitting machine, (gauge), percentage of boil-off, type of boarding form, amount of stretch given to hose in boarding, and type of finish used in dyeing. Nevertheless, as stated earlier in this discussion, total courses can be closely pre-determined by setting up composite specifications from earlier styles knitted under similar conditions. Gum silk lends itself far easier to theoretical styling than most other commercial fibers because of its non-shrinking qualities. On the other hand, wool, although little used in full-fashioned hosiery, is one of the hardest fibers to style.

Design Chart

The designer should equip himself with a suitable chart for layout work (see form on following page). A visible form upon which the courses and needles can be calculated is an invaluable aid and can be used as a future record of styles. All the necessary data can be inscribed on a sheet 8½ x 11 inches and placed in a loose leaf binder for future reference. There are many variations of the style chart described in this discussion and it may be necessary to draft one differing here and there for the individual requirements of the mill.

It will be noted that the courses are given in each portion of the stocking, rather than compounded or totaled from part to part. Only at the end of the blank is the total given. This is done to simplify any future changes necessary in any given portion without affecting the rest of the course count. For example, if the number of courses are to be changed in the welt, the figures indicating the welt portion need only be changed, together of course, with the total. If the numbers were totaled throughout then all would have to be changed.

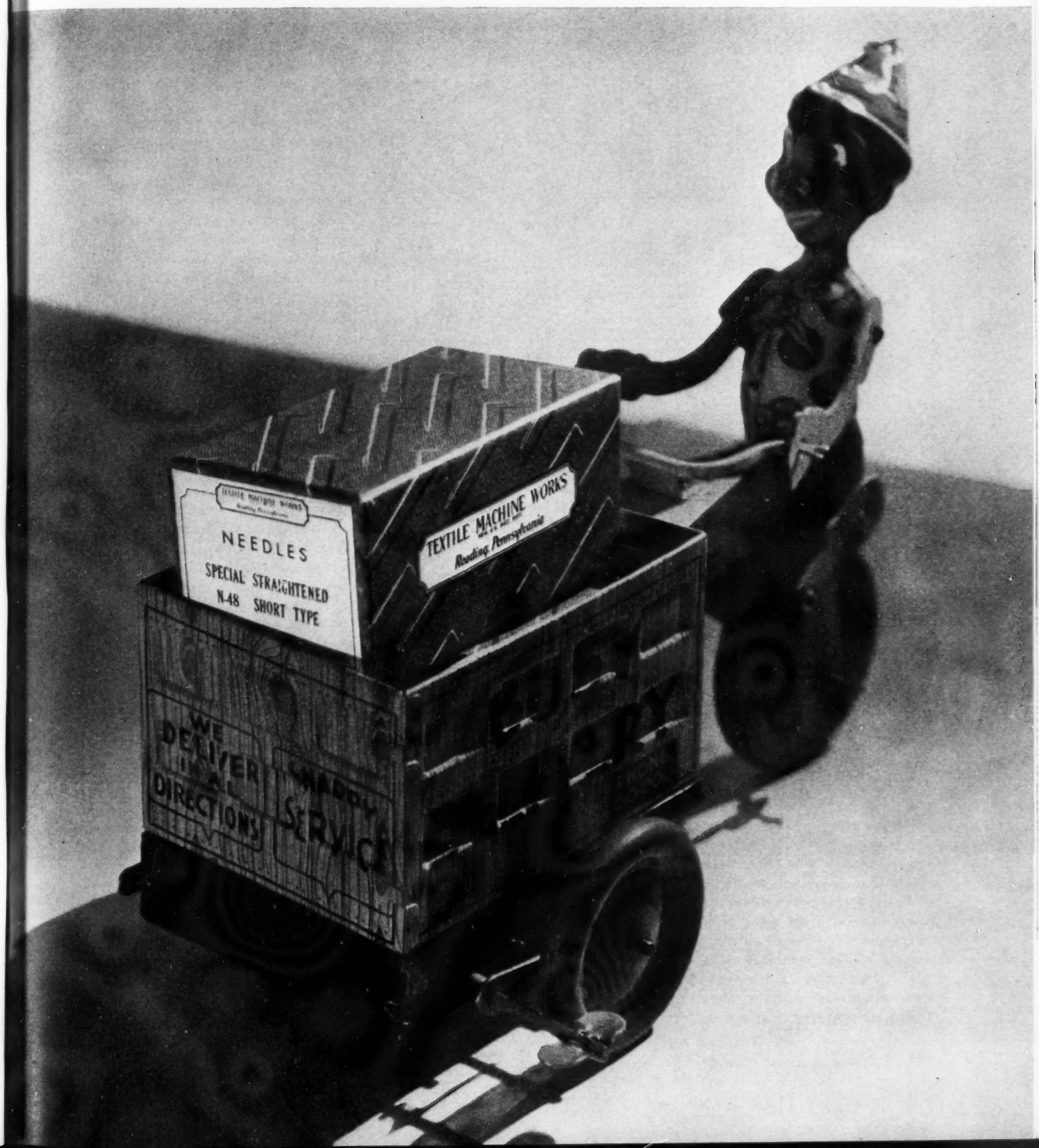
Three additional columns have been inscribed to the right of the course count column to permit future changes, with a place for the date at the top of each column. Courses per inch are indicated by the letters "c.p.i." following the numbers, while needle widths are designated by the letter "N" after the number. The lengths given at the extreme left side of the chart are finished lengths and are not to be conflicted with lengths as they come from the machine.

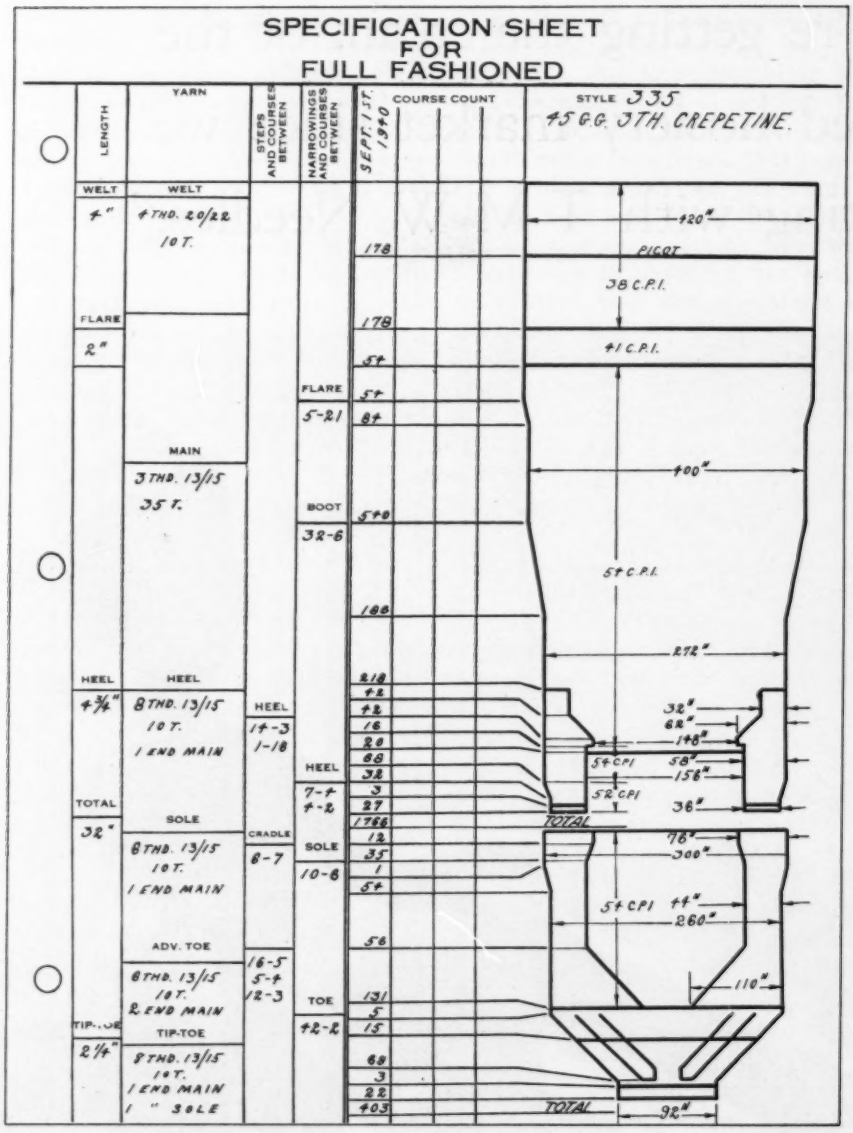
In the second column there is plenty of room for yarn specifications arranged in a manner to be readily observed at a glance for any given portion. Such information as twist or any special data concerning the yarn can be recorded. The third column gives the number of steps in the reinforcements and courses between steps. The heel portion of this particular chart reads, 14-3, 1-16, meaning 14 steps with 3 courses between and one step of 16 courses. This method of stating courses rather than buttons or links is used to facilitate the computation of total courses. The next column to the right gives the number of narrowings and courses between. Needle widths and courses per inch are given directly in the body of the diagram. In the foot portion of the chart the courses have been calculated for size 9½, as all other sizes can be computed from this beginning.

Industry Needs Uniformity in Counting Courses

As pointed out in articles in recent issues of this magazine pertaining to course control for full-fashioned mills, each mill has its own method of counting courses

"... and we're getting the cream of the full-fashioned hosiery market since we began knitting with T M W Needles."





and what may constitute 46 courses per inch in one mill may be something entirely different in another. Unless some standard method of counting is adopted throughout the industry no definite rule can be set up for style specifications that will hold good in all mills. Courses per inch will remain an indefinite factor until such time that a standard is accepted throughout the trade.

A certain amount of uniformity or similarity is noticed in ladies' hosiery as regards general appearance in most styles. The three and one-half to four inch welt and two inch flare or sub-welt seem to be fairly standard on most styles of merchandise. Four and a half inches is the usual length for heels with about a three-fourths inch spike or narrow splicing. There is, however, quite a difference of opinion as to the location and spacing of the fashion marks in the flare and leg. Usually, the form upon which the hose are dried determine the fashioning to a great extent; whether it fits the leg or not seems to make very little difference. As it is necessary to knit a stocking that will fit most women, only a composite shape can be fashioned. There are several excellent natural leg forms obtainable that will give the average dimensions if a stocking is placed over them, and all new styles should be subjected to this test before going into production. The average mill makes but one width in ladies hosiery, due largely to the added expense entailed in making various widths. Nevertheless, there are several mills that manufacture two and three widths plus a length variation ranging from 27½ to 36 inches. Personalized hosiery is becoming more popular each year, the buying public becoming more conscious of the advantages along these lines.

Theoretical and Practical Design

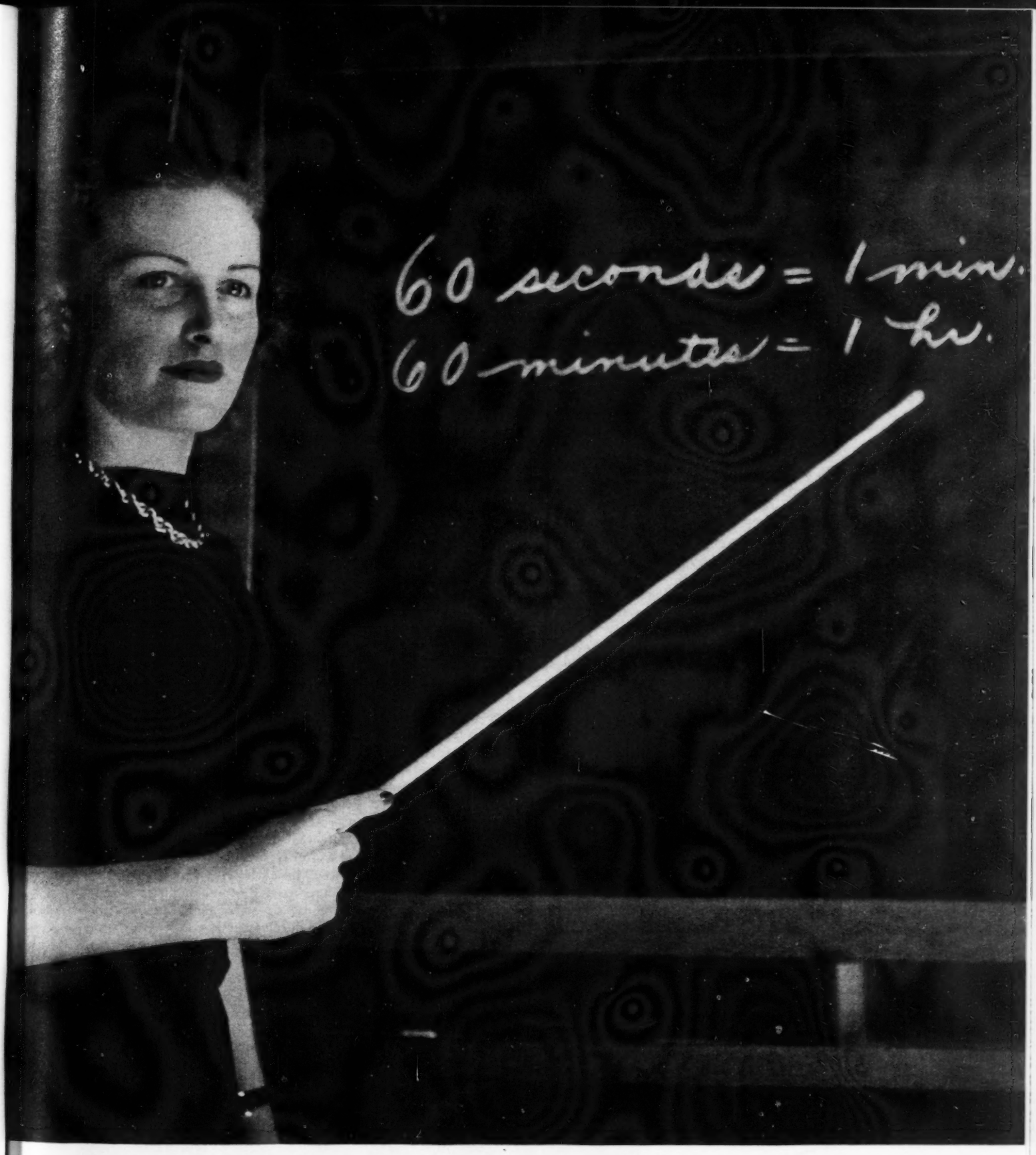
Welt stretch or elasticity of the hem is a major consideration in setting up style specifications. It is no easy matter to produce a good appearing top with the full amount of elasticity required for normal leg dimensions. On a forty-five gauge, 14-inch head about 38 courses per inch are required for a six-thread or four-thread 20/22 denier welt. To knit a 4-inch welt, finished length, approximately 356 courses are necessary. It will be noted that more courses are knitted in this area than would be computed by multiplication of courses per inch, because as earlier stated, of take-up in boarding. On the other hand, a typical specification for a main leg portion of a three thread stocking will reveal that less courses are needed than would be calculated by this method. For a 21¼-inch portion of a 32-inch overall length stocking, that part extending from the sub-welt to the start of the high splicing, 1082 courses are required at 54 courses per inch. By multiplication, 1148 courses should be necessary, a difference of 66 courses. These figures will vary somewhat under different conditions, depending upon the method of counting courses, width of drying forms, etc.

Frequent checks must be made on new styles to determine the proper total courses for any given length. It is not uncommon to pass a test lot of new goods as having the correct length, only to discover later that the work in production does not measure up to the sample lot, or vice versa. Here again, the variable factors involved are responsible for this condition and cannot be avoided.

Nylon Hosiery

Specifications for nylon will require a different formula because of the shrinkage involved in finishing this yarn. Approximately four courses per inch less are counted on the machine to produce

(*Continued on page* 148)



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"Cotton" staff photos

37th Annual Knitting Show

Including a report of the annual meetings of the National Association of Hosiery Manufacturers and Underwear Institute

THE 37TH ANNUAL Knitting Arts exhibition was held in Commercial Museum at Philadelphia April 21-24. This show had slightly fewer exhibitors than the record show of 1940, due in the main part to the absence of the principal manufacturers of circular knitting machines, but there was still enough of interest to hosiery and underwear mill men to cause them to attend. Many mill executives found it necessary to stay at home during the exhibition because of pressing business and defense orders, but those that could attend came with the definite objective of doing business or of looking into some problem that is immediately confronting them. While there was some complaint on the part of a few exhibitors that the crowd was small, other exhibitors considered that in the light of the interest on the part of those mill men that did attend, the time and expense of being a part of the 37th annual show was well invested.

Because of the absence of much of the moving machinery, this show lacked the glamor and romance of past exhibitions, but mill men at the show were still able to see such equipment as nylon sizing machines, new lighting equipment, dyeing machines and auxiliary equipment, conditioning apparatus, the application of corrosion resistant metals, plastic supplies, floor scrubbing machines, equipment for winding knitting packages automatically, hosiery trimming machines, methods of labeling and identifying products, special equipment for nylon hosiery, paper carriers, loopers, sewing machines for various and sundry purposes, new finishing and dyeing compounds, boarding equipment, hosiery repair machines, snarl eliminator for conditioning troughs, filling winders, new inspecting machines, baskets for nylon, packaging machines, safety tables, hosiery napping machines, automatic heeler for full-fashioned work, body machines for knitting wool and jersey fabric, high speed beaming machine, warper for flat warp knitting machines and the flat warp knitter, fancy yarn twister, testing machines for abrasion, snag and stretch tests, fading lamps, motors and variable speed drives, and tests and research findings. Manufacturers of such supplies as lubricants and yarns maintained booths in which to greet their friends.

Besides seeing the foregoing exhibits, mill men were able to discuss their problems with both manufacturers of equipment and other mill men attending the show, so it is felt that no executive found it necessary to criticize his loss of time away from the plant, but came away from the 37th annual show with a feeling of satisfaction at having attended.

Annual Hosiery Meeting

The annual meeting of the National Association of Hosiery Manufacturers was held on Wednesday, April 23. J. E. Millis of Adams-Millis Company, the retiring chairman, spoke of the excellent work that has been done by the staff of the association, and pointed out the necessity for the association inasmuch as "it is almost impossible today for the individual management to maintain facilities adequate to accurately analyze and translate into an intelligent program of activity the various types of information so necessary to us." In the foregoing Mr. Millis referred specifically to the program of public relations carried on by the association, under the direction of Earl Constantine, president, and the necessity of keeping one's fingers on the pulse of consumer groups, buying groups, legislative bodies, and others of interest to the hosiery industry.

Mr. Constantine, in his annual address and report to the association, reviewed the activities of the past year and predicted that the industry is entering a year with unexpected or abnormal developments. Discussing nylon, he told of the continued increase in the number of nylon hose manufactured and said that it "would appear that nylon shipments in 1941 will account for 17 to 20 per cent of the total ladies' full-fashioned shipments", but that other synthetic yarns may be available in the future, and he welcomed such development because he considered it "not healthy that the supply should be available in one

source alone".

Going into a discussion of supply defense needs, Mr. Constantine said that so far the resources of the industry have been called upon only in part to provide the government needs, and that the industry is capable of taking on much more. "To date, the industry has not faced the problem of priorities, but it is conceivable that we may face the issue when the purchasing program of the government expands further," he said, and cautioned that "this could apply not alone to commodities but equally so to equipmen and products which require metals and other substances on which supplies are limited."

Wool Products Labeling Act

With reference to the wool products labeling act, which goes into effect on July 14, requiring that all products containing any wool shall indicate the percentages of the various fibers, Mr. Constantine explained that many of the provisions of the law are creating serious problems, but that the association has been active and useful in securing interpretations of the law as applied to hosiery products, and that the association will be useful in guiding and assisting hosiery manufacturers in their efforts to comply with the law.

Trade Practice Rules

The speaker said that the Federal Trade Commission will issue the trade practice rules for the hosiery industry in the very near future, and was willing to "bet one boot" that they will be in force by the end of May.

The research committee of the association presented a brief report of the series of intercomparison studies with the Yokahoma Silk Conditioning House of the Japanese government. This report may be secured from the association upon request.

Officers for the ensuing year were elected by the board of directors. Those to serve are as follows: Chairman of the board, Irving K. Hessberg, Van Raalte Company, Inc.; vice-chairman, P. W. Eshelman, Wilkes Hosiery Mills Co.; vice-chairman, J. J. Kronenberg, Wayne Knitting Mills; president, Earl Constantine; treasurer, Nathaniel Judson, Mock, Judson, Voehringer Co., Inc.; and secretary, Reuben C. Ball. Directors elected for 3-year terms are John M. Berry, Rome Hosiery Mills; James M. Beverley, Ballston-Stillwater Knitting Company; Herbert Jaques, Hub Hosiery Mills; George C. Szabo, Holston Manufacturing Company; and James N. Weeks, Hanes Hosiery Mills Company. Messrs. Berry, Beverley and Szabo were re-elected after serving one term of three years.

Mr. Constantine

Mr. Millis

Mr. Eshelman

Mr. Kronenberg

Underwear Institute Meeting

The annual meeting of the Underwear Institute was held on Thursday, April 24, with Roy A. Cheney, president, in charge. National defense was the theme of the entire meeting, with officers from the Philadelphia Quartermaster Depot presenting papers on various phases of the Depot's work and its scope and activity, which was interesting and especially helpful to those present because of the close association between the underwear manufacturers and those purchasing for army use.

In his annual report, Mr. Cheney reviewed the activity of the association during the past year, and traced events of interest to manufacturers of underwear. Getting into the defense activity of the mills, he said that the main job is to supply the government fully with its needs, but that another job almost equally as great was to avoid training people for future unemployment and to avoid building for future overcapacity. "In short, plan now to cushion the effects of the after-the-war let-down."

Mr. Cheney pointed out the danger of sabotage and suggested that every mill having a government contract should request the Federal Bureau of Investigation for advice and counsel as to the best ways of protecting its plant, properties and production, and do it now, not next month, or it may be too late.

Mr. Cheney also pointed out that it would be advisable to insert an "up-and-down" clause in future contracts, and suggested the following wording:

"Prices and/or deliveries on any undelivered portion of this contract are subject to increase or decrease by the amount that any new government legislation or action thereunder directly affects seller's costs, deliveries and/or production. In the event of legislation or governmental action thereunder directly affecting deliveries, deliveries of orders on hand shall be made equitably by pro-rating the merchandise available above the demands of the government."

In the annual election of officers, all officials for the past year were re-elected; these include: Chairman of executive committee, Ralph M. Jones, Utica Knitting Company; first vice-chairman, Grover C. Good, Globe Knitting Works; second vice-chairman, Walter W. Moyer, Moyer Underwear Mill; and treasurer, Oscar W. Gridley, Utica Knitting Company. The executive committee elected consists of: Lyndall F. Carter, The Wm. Carter Co.; Brian W. Clarke, Fort Schuyler Knitting Co.; Roger W. Whitman, American Hosiery Company; Victor R. Schmidt, Queen City Textile Corp.; T. Frank Kendrick, James R. Kendrick Co., Inc.; A. H. Bahnson, Washington Mills Co.; E. L. Olrich, Munsingwear, Inc.; Fred H. O'Hara, Norwich Knitting Co.; L. U. Lynt, Little Falls Mfg. Co.; J. B. Lesher, Bestok Underwear Co.; H. E. Shimer, Nazareth Waist Co.; Geo. H. Jones, Gilbert Knitting Co., Inc.; Walter C. Powell, Amazon Knitting Co.; Arthur M. Reis, Robt. Reis & Co.; Ralph Y. Cooper, Coopers Inc.; E. N. Winship, Winship-Boit Co.; F. R. Riesenberger, Van Raalte Co., Inc.; T. H. Mueller, Julius Kayser & Co.; and H. B. Snader, Vanity Fair Silk Mills.

Mr. Cheney

Mr. Judson

Mr. Hessberg

Mr. Ball

KNITTING KINKS

Plaiting Settings on 19-Step Wrap Stripe

EDITOR COTTON:

On the 19-step wrap stripe machine, the thing of foremost importance is the plaiting, as every man that comes in contact with wrap goods knows that it is most important to get a good clean cut pattern. To obtain this result it is necessary that the reinforcing yarn guide (part No. 85612, sometimes called a plaiting finger) be set right. Different patterns require a different setting of this guide; for instance, for a single needle stripe it is necessary to have it set so that the point comes even with the needle as it goes below the fabric to form the stitch, and as low as possible without striking the sinkers. This can be determined by setting it down low then pressing down with your finger. If it is contacting the sinkers there will be no play, but if set right, there will be a little distance between the two, just enough to prevent rubbing.

Too much care cannot be taken at this point for if too low it will injure the fabric. Sometimes slight enough that you may not know until after the goods are finished, then you may see the ends of the broken filaments extending from the hose. Of course, if real low, the sinkers will wear the end of the finger off to the extent of making a burr or sharp place on the end of the guide, which causes serious damage to the hose.

Sometimes this situation is brought about when the guide is not set properly and for some other reason, the carrier ring is lowered together with the reinforcing yarn guide, which is mounted on the carrier ring.

Also for a single needle stripe I would recommend a central hook needle, or needle with similar hook. Also for single needle stripes it is important that all take-up springs be adjusted to about the same tension.

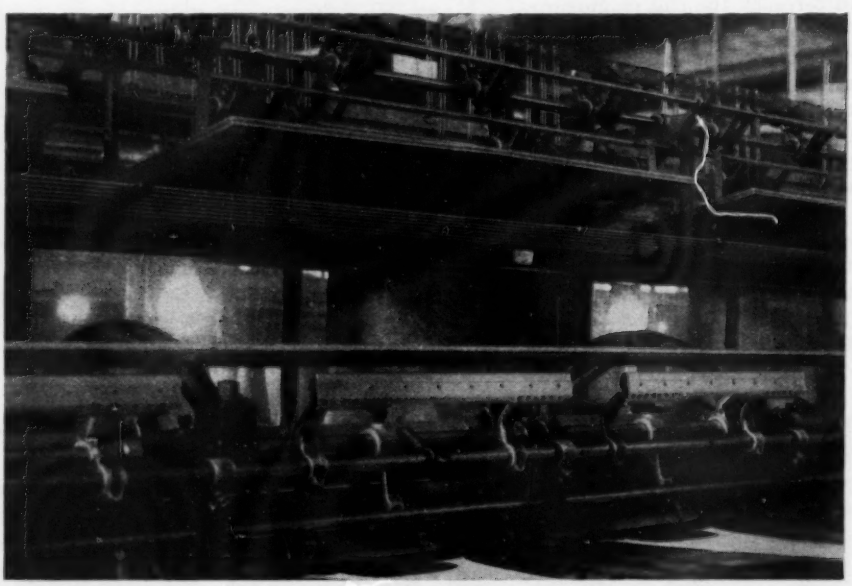
Very little tension is needed for this stripe, a design or stripe of two or more needles requires more tension. If two or more needles are used in the vertical, use this needle in leading needle only.

The central hook needle is not considered necessary by some fixers, but I find that it makes the job of clearing up the verticals much easier. When designs are made, sometimes better results are obtained by setting the point of the reinforcing yarn guide back a little from the knitting point, thus giving the take-up spring more time to pull the wrap yarn up close around the needles.

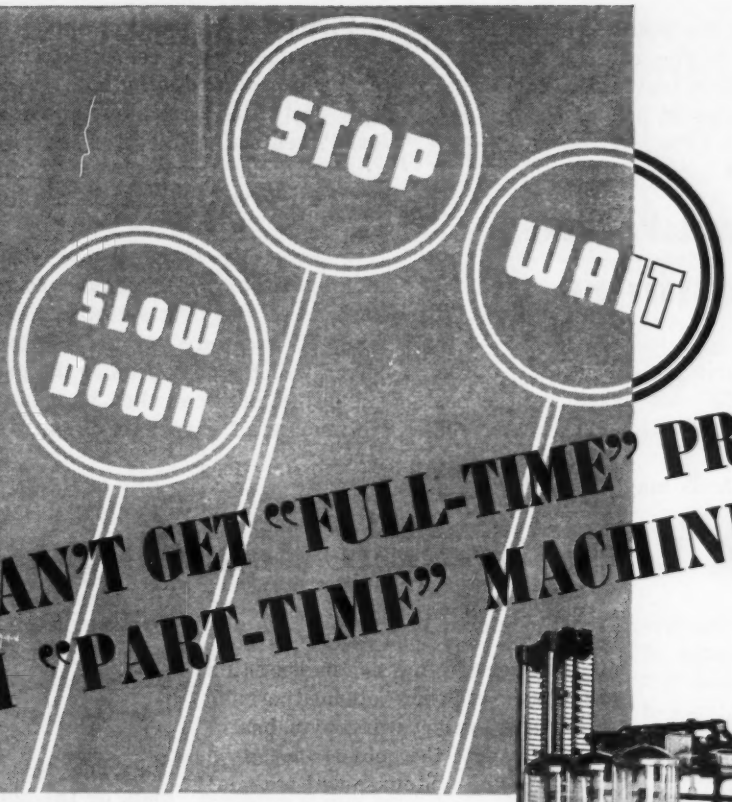
Care must be taken in the adjustment of the reinforcing yarn guide at the point just over jack raise cam No. 145772. This is the cam that gives the inside color needles a little extra rise to raise the end of the latch above the outside color yarn so when they are being drawn down they will cast off this yarn; thus leaving the inside color pattern clean, free from outside color. If the guide is too high at this point, it can't cast off the outside color,

Nylon Hints

IF YOU are knitting nylon and tram silk in the same room then this photograph will interest you. Most plants have found that tram silk runs better when the room is kept at about 60 degrees relative humidity, but nylon requires a lower percentage of relative humidity. This mill has solved the problem of running both nylon and silk in the same room by keeping the relative humidity at 60 per cent (so that the tram silk will run well), and installing a 40-watt incandescent bulb in the silk box on machines containing nylon. The bulb is kept lighted all the time, giving a relative humidity of around 40 per cent in the box and conditioning the nylon to the required state. This reverses the principle for which the humidity boxes were intended, but it serves the purpose well in this plant. If knitters will keep an extra cone of nylon in the box, the cone will be in good condition to use when it must be run on the machine.



COTTON staff photo



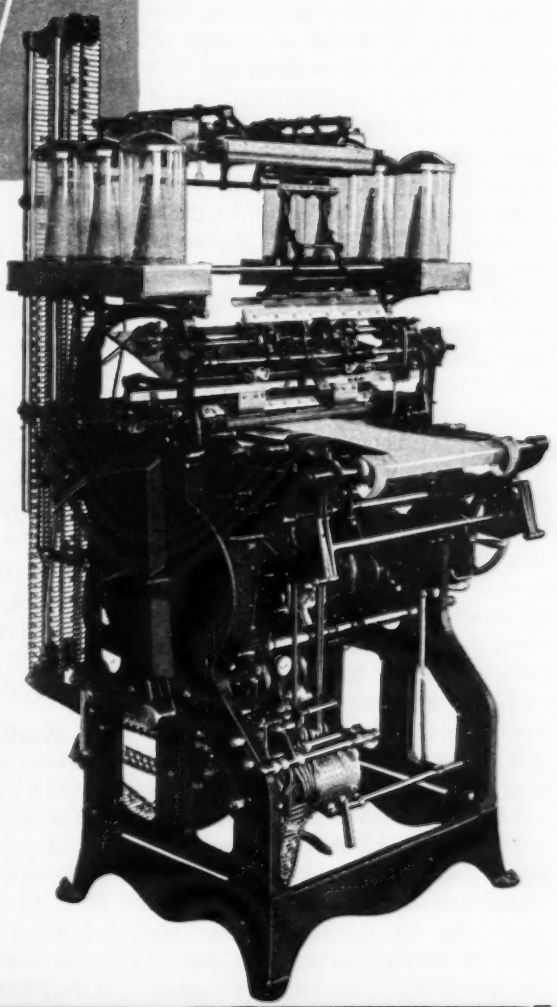
YOU CAN'T GET "FULL-TIME" PRODUCTION FROM "PART-TIME" MACHINES . . . . . .

Reduce Waste Time to a Minimum

Production has become industry's most urgent problem of the day. The Wildman Single-Head Single-Unit Full-Fashioned Hosiery Machine provides a production capacity unequalled by any other equipment. It eliminates the necessity of slowing down during the narrowing and plating, as required by multiple-section machines. It cuts out the loss of time, unavoidable on a multiple-head machine, when turning welts, changing needles and points or making adjustments. Whenever a multiple-head machine is stopped, 20 to 30 sections are thrown out of production . . . so that a one-minute shut-down to change a needle means a 24-minute loss of production time on a 24-section machine.

Not only does this modern Wildman machine increase production and reduce waste time—but it also produces hosiery that is uniformly perfect from top to toe, because the entire stocking is knit in a single and continuous operation. This means fewer rejects and seconds, with a corresponding increase in *profitable* production. Write for complete information, without obligation.

Wildman Manufacturing Co., Norristown, Pa.



WILDMAN SINGLE-HEAD, SINGLE UNIT FULL-FASHIONED HOSIERY MACHINE

thus leaving both colors on the needles, which makes an ugly place in pattern. If the guide is too low it may cast off both yarns, thus leaving a place much resembling a skip, or no wrap at all.

CONTRIBUTOR NO. 7171

Even Heel and Toe Stitch on Banners

EDITOR COTTON:

On page 166 of the April 1940 issue of COTTON, your "CONTRIBUTOR No. 7055" has asked for the best way to even the heel and toe stitch on Banner machines.

In my opinion, two methods may be employed:

First: Determine that sinker cap cams and bumper adjustments are correct. Then count the courses per inch on the running side. After doing this, withdraw the stitch cam block and reverse running cylinder. Then count the stitches on the reverse side. The stitch can then be evened by either raising or lowering the reverse stitch cam or the running side stitch cam.

Second: By marking the yarn with an ink spot and determining the length that is drawn into the machine on the first reciprocation and doing the same thing to the yarn on the reverse reciprocation and noting which side consumes the greater length of yarn. The adjustment can then be made on stitch cams until the amount of yarn knit on each reciprocation exactly agrees.

CONTRIBUTOR NO. 7085

Routing Lots through Boarding Room

WHEN HOSIERY reaches the dyehouse there are a number of different styles to be dyed and finished. After it is dyed and trucked to the spare floor in the boarding room it should, ordinarily, be boarded in the order that it comes from the extractor; first in, first boarded. With several different styles coming through it is only natural that some lots will board better than others, and if the boarders are allowed to pick over the lots and get the one they want, naturally they will get the one that is easiest to board, regardless of *when* it came from the dyehouse. Consequently, the tough lots are left until the shipping clerk begins to request them. To avoid the practice of picking out the easiest lots to board it is necessary to have some rules and regulations for getting up lots to board.

The most common system is to require each boarder to find the oldest lot on the spare floor and board it next. This is determined by the batch number on the work ticket. As the batch numbers run in sequence, the boarder simply finds the lowest number. Some mills use the dating system; the date is written across the top of the ticket when the lot is extracted. Some add the time of day the lot was extracted while others just give the day of month. In either case the boarders lose quite a quantity of productive time finding the "legal" lot unless the management furnishes a man to bring the work to the boarders and strange to say, few mills do.

System to Board the Lots

In order to save as much of this time lost between lots as possible there is a system whereby a boarder can spot the oldest lot at a glance. The system is very simple:

Instead of the work ticket going with the lot to the spare floor, which is the conventional custom, the ticket is filed in a box attached to the wall, a column or some other place most convenient for all the boarders. The trucks containing the lots are lined up in such a way that any one can be gotten out with a minimum of effort; that is, there is trucking space on either side of every pair of rows.

Each truck has a number stenciled at the top-center of the end of the truck, both inside and outside. These numbers are a bright red, and about 2-inches high so they can be distinguished at a distance.

Work Ticket for Order of Boarding

The work tickets are made out in the dyehouse, and follow the lot until it is unloaded at the extractor. The lot is then trucked to the boarding room where it is lined up in an accessible manner. The ticket is placed in the box or file previously referred to (see illustration), but it is filed in the rear of the other tickets, not in front. By placing the tickets of the last lot out in the rear of the file, it automatically pushes the oldest ticket to the front, and since each ticket has the number of truck which contains its corresponding lot marked on it, all the boarder has to do is spot the truck—which can be plainly seen from most any angle—that has the number on the ticket.

In case the finishing room foreman, or the shipping clerk wants a lot out of turn, all he has to do is go to the file box, pick out the lot ticket he wants, have the dyehouse foreman stamp "RUSH" on it to make it official, and then place it in the front of the box; the next boarder looking for a lot will get it in the usual way.

If the rush-lot is not yet out of the dyehouse, the foreman is notified and the ticket of the special lot is duly stamped. When it leaves the dyehouse the extractor man places the ticket in front of the others instead of the rear, so it will be next on the list.

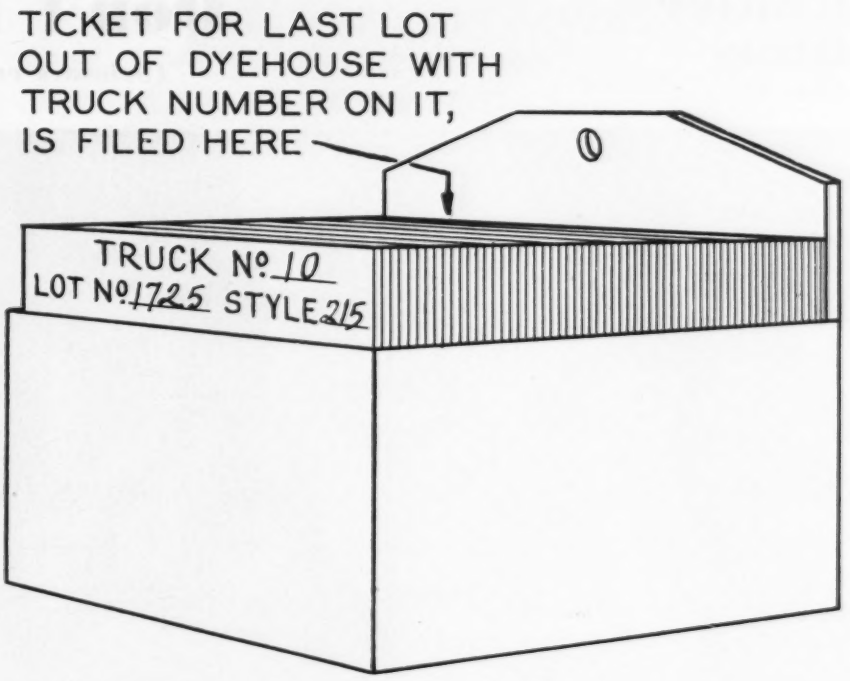
This system of boarding lots in the order in which they come out is easy to enforce; as a matter of fact, it is self-enforcing because when a boarder is out for the next lot all other boarders are watching him lest he take a lot out of turn and so work a hardship on them.

Invisible Losses

While on the subject of getting work through the boarding room, it might not be amiss to mention some invisible losses, and ways of reducing them. By far the biggest percentage of invisible loss in the boarding room is what the boys take out in their pockets. From this it should not be inferred that hosiery boarders are lacking in moral standards. Pilfering is prac-

ticed by employees in any establishment where small consumer articles are manufactured, just as an operative in a cigarette factory smokes on the house, so do the great majority of hosiery boarders consider it their privilege to supply their needs at the mill's expense.

A moderate amount of this form of pilfering is expected, and tolerated in many boarding rooms; even winked at in some cases. Nevertheless, the management must be constantly on the alert, or it will get out of bounds. Some smart alec may get too bold and go into the retail business on the side. So, it is wise to let the employees know that they are expected to account for all shortage of lots when it leaves their hands. Of course, an employee can report a shortage of a pair or so out of a lot as lost occasionally, but they will not take chances this way very often.



This is a very delicate situation; the employers must handle it very carefully and tactfully; discharging or prosecuting employees for petty larceny is unpleasant, expensive and more or less risky. I will relate an instance which I think was a very clever way of handling this delicate situation:

A foreman happened to walk up behind a boarder who was slipping a pair of socks into his pocket. Instead of putting the boarder through the third degree or firing him on the spot, as the ordinary foreman would have done, this foreman acted as though nothing out of the ordinary had happened; not a word was said to the boarder.

The incident was reported to the office by the foreman with the request that he might handle it in his own way. The request was granted. When the boarder received his pay envelope the next pay day he found a deduction of 15 cents from his wages with a notation on a little slip of paper on the inside which read: "One pair of socks, Style 215, Color, Navy and Gold, Size 10½. In the future, when you get any hosiery please notify your foreman, so we will know whom to charge them to. And by the way, you can save money buying hosiery from us by the dozen pairs."

This little piece of strategy undoubtedly made this boarder more careful without a great amount of embarrassment or harsh feeling towards his employers.

Banner Cuts Yarn

EDITOR COTTON:

The following question appeared on page 166 of the April 1940 issue of COTTON: "On Banner machines, when the proper construction is used in making a stocking according to the gauge of the machine, what causes cutting in the various yarn changes and how can this trouble be overcome?" This was sent in by "CONTRIBUTOR NO. 7056".

In answering this inquiry, I would first test the tensions of the yarns that make the defective laps, especially the heel and toe yarn because it travels over an oil wick. If this wick is not properly adjusted it puts excessive drag on the yarn.

If the trouble should be horizontal stripes cutting in the laps and the tension on the stripe yarns is not correct, it might be that the body yarn does not have enough tension. If this is the case, "CONTRIBUTOR NO. 7056" uses the tension adjustments on the machine to get his correct size, therefore the stripes run about twice as tight as they should—causing the laps to burst.

Now, even if the proper size of yarn is used according to the gauge of the machine, it is easy to get too many links in the chain for the size stocking he wishes to make. In doing this he forms too tight a stitch, therefore in the laps the needles cannot carry the two or more yarns which are running at one time. Less links and forming a looser stitch with the machine tensions will correct this and also give correct size and fabric.

If the foregoing things mentioned are correct, nine times out of ten a new running stitch cam will stop the cutting in the yarn changes.

These are the most important points towards eliminating this man's trouble. If any certain part of a machine caused a certain trouble, machine fixing would be easy; but it takes all of a machine to make a stocking, therefore a number of things can cause the same trouble. CONTRIBUTOR NO. 7072

Knitter Hints
(No. 2)

Don't Be a Tailor

(Scissors cannot correct a defect)

Reprints for posting in mill will be furnished without charge if requested by June 1. See "Knitter Hints" No. 1, April issue.

Photo, John C. Fonville of "Cotton"

When your Needle Oil is SHELL TEXTILIS 24K

YOU don't have to worry about needles rusting, oil oxidizing or permanent oil stains on goods with Shell Textilis 24K doing the lubricating.

This special oil . . .

1—Keeps needles polished and clean.

2—Is easily removed from goods by ordinary finishing processes.

3—Protects machine parts from rusting during shutdown periods.

4—Lubricates effectively and economically.

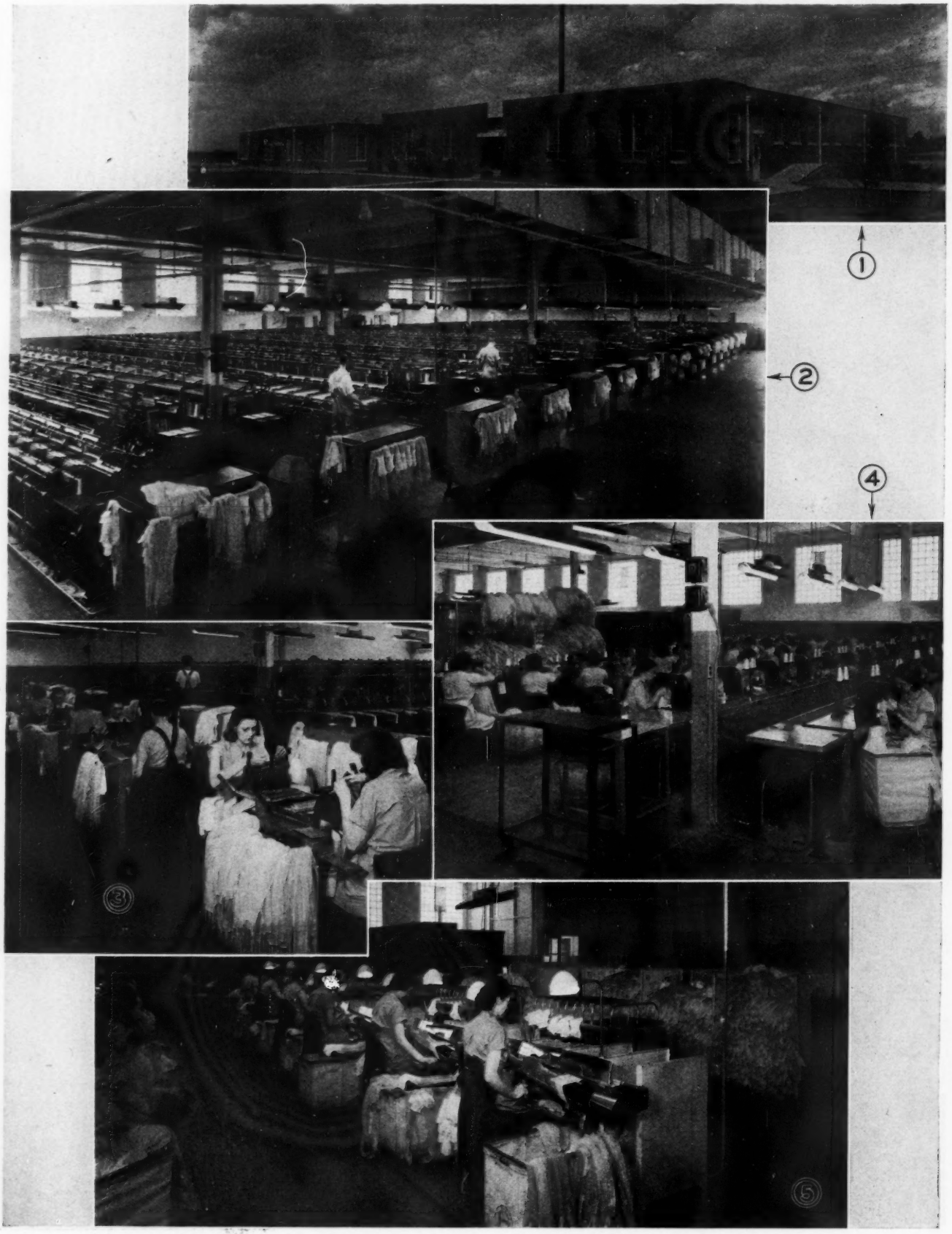
There are 14 Shell Textilis Oils — each one equally efficient in doing the particular work for which it was designed. Call in the Shell man. Give him your toughest lubrication job. Watch him lick it.

SHELL

SHELL TEXTILIS OILS

The Liberty Hosiery Mills, Inc.

A modern full-fashioned hosiery plant



PHOTOGRAPHS on this and the facing page are of the modern full-fashioned plant of the Liberty Hosiery Mills, Inc., located at Liberty, N. C. The building is constructed of brick, steel and glass blocks, with an offset forming a court about the center (No. 1).

The fine gauge full-fashioned machines were purchased new, the average age at this time being less than two years (No. 2). Both silk and nylon are manufactured. Flooring in knitting room is cement with wooden alleys between machines. Air conditioning is of the comfort cooling type and lighting here consists of 100-watt fluorescents.

Toppers' chairs (No. 3) are covered with cotton fabric to prevent pulled threads and lighting here is fluorescent, as is also true in seaming and grey inspection departments.

Flooring around the seaming and looping tables (No. 4) is of the same construction as that used around knitting machines; later the building can be filled with knitting machines without disturbing the floor. Seaming machines are high speed type. Truck in foreground holds topping bars.

Inspection forms (No. 5) are of compressed air type, equipped with mirrors for inspecting all sides of hose. Note two different types of storage bins.

Dyehouse floor (No. 6) has trenches left at one side so additional tubs may be installed without tearing up concrete to make drain gutter; these are covered with maple. Laboratory and drug room are in background. Control instruments on dye machine are recording type; signal lights call operator when machine requires attention.

In boarding and pre-boarding (not seen) room floor is cement with metal drip pans beneath machines (No. 7). Control instruments are for temperature and can be set by operator with knob indicator.

Inspection department (No. 8) has windows constructed to permit most efficient inspection without glare. Lighting here is 40-watt fluorescent. Inspecting tables are of steel. Trucks are home-made.

Transfer tables (No. 9) have wooden base with marble top. Lighting is 40-watt fluorescent. Windows are covered with venetian blinds.

The building was designed by H. V. Biberstein, Charlotte, N. C., and was constructed in 1939. Sales are by mills own office located on 27th floor of Empire State Building, New York City.

Photographs furnished by Textile Machine Works.

TRENDS AND HIGHLIGHTS OF THE KNIT GOODS MARKETS

Hosiery And Underwear Trades Becoming Rushed—Prices Rising On Higher Yarn Prices, Wage Advances Plus Forward Coverage—Full-Fashioned Prices Trending Upward—Nylon Shipments Mounting—Seamless Wage Increase—Crepe de Chine Hosiery In Spotlight

April 16, 1941

A CREEPING ADVANCE in unbranded full-fashioned hosiery prices is under way but there are no indications of a nearby advance in branded merchandise of this type although silk has been steady this month. Berkshire raised their low-end full-fashioned 10 to 25 cents per dozen. Manufacturers of full-fashioned are booking orders in heavy volume. Makers of half-hose are operating at very active rates with the Government being a factor in this end of the business as well as in the underwear field where manufacturers are selling actively in the face of strong price trends. The trade is not fully aware of what the cotton yarn advance in the last month means; it has been of sufficient force to change some retail price tags after manufacturers get working on higher priced yarn orders. Nylon hosiery prices at retail have eased somewhat this month.

Full-Fashioned

Shipments of women's full-fashioned hosiery during the first two months of 1941 registered a gain of 3.7 per cent over the same period a year previous, according to data as compiled by the hosiery association, and indications are this percentage increased further in March. The Easter business this year will be much larger than in 1940 and knitters are now enjoying a spurt that has no comparison for several years. There are buyers who fear coming price increases in goods due to higher price trends generally and this covering is placing the mills in a very strong position. There have been minor price increases in the unbranded full-fashioned field such as the 10 to 25-cent-per-dozen increases on low-end merchandise announced by the Berkshire of Reading, Pa., but there is nothing to indicate that the branded field generally is about to increase prices.

In February an outstanding development was the increase in nylon hose shipments, these totaling 468,227 dozen pairs or the largest for any month since this type hose was introduced. Not only are shipments of nylon larger but retailers have been offering them at lower prices so that the two trends mean in the coming months production of silk hose will be further affected.

Reports from consumers are definite that wearing qualities of nylon are far ahead of silk so that as production of nylons increases the demand for silk may go down even proportionately faster. But notwithstanding this in the first two months of this year shipments of other than nylon full-fashioned increased 10.2 per cent over the same period a year previous and there are some who feel that expected promotions of silk hose such as crepe de chine will bring back some of the consumer market lost to nylon.

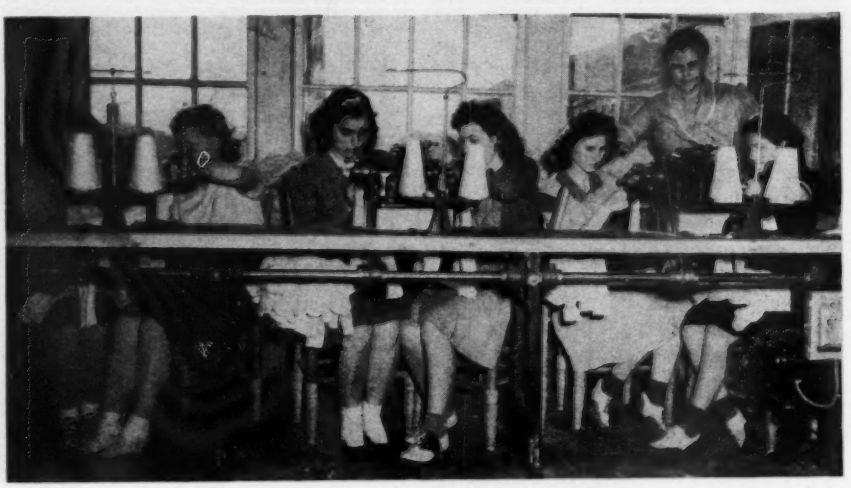
Half-Hose

Mens' half-hose is one of the most active spots in the hosiery market. In the first two months of this year shipments of the standard length hose jumped more than 16 per cent ahead of the same period a year previous and during the same period shipments of slacks or the short socks spurted 4.6 per cent. One factor in this has been the fear of higher prices than already placed in effect; the price situation is strong and mills are well sold ahead so that this has acted as an incentive for additional coverage.

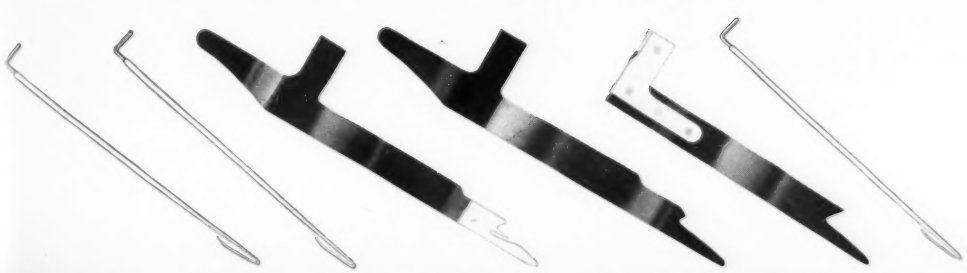
Cotton yarns and silk have been strong and there is now talk of a possible increase in rayon so that all three make for a strong price situation in half-hose. Mercerized yarns have already jumped sharply and additional increases are expected in this type yarn so that users are very firm in selling goods ahead. In addition there is the current recommendation that the seamless hosiery wage minimum be adjusted upward from the present 32½ cent per hour level up to 36 cents which would mean a substantial increase in costs for knitters in addition to the higher yarn and taxation problem. Knitters declare that large buyers are trying to cover far ahead.

Looping Taught in Valdese High School

THERE are a number of hosiery mills in the town of Valdese, N. C., and in order to prepare the students of the Valdese High School for mill work when they graduate, a course in looping has been added to the high school curricula. School credit is given for the work at the usual laboratory rates. Popularity of the course in looping is shown by the fact that of the 27 girls in the senior class, 21 of them made application for the work when it was offered. Because of limited facilities, only 12 were accepted this year. The equipment consists of three loopers, on which two girls can "learn" at a time on each machine, making 6 girls to a class. One class is held during school hours and one after school closes. The machines were furnished by a local knitting mill and the school employs a skilled practical operator. The mills in and around Valdese also furnish material for the practical course, and also have offered further support when necessary. The instructor advises that the school girls have made excellent progress in learning looping. There will be a job for them when they graduate. Wade H. Stemple is principal of the Valdese High School, and to his knowledge this is the only course of its kind in any high school.



Associates in Quality

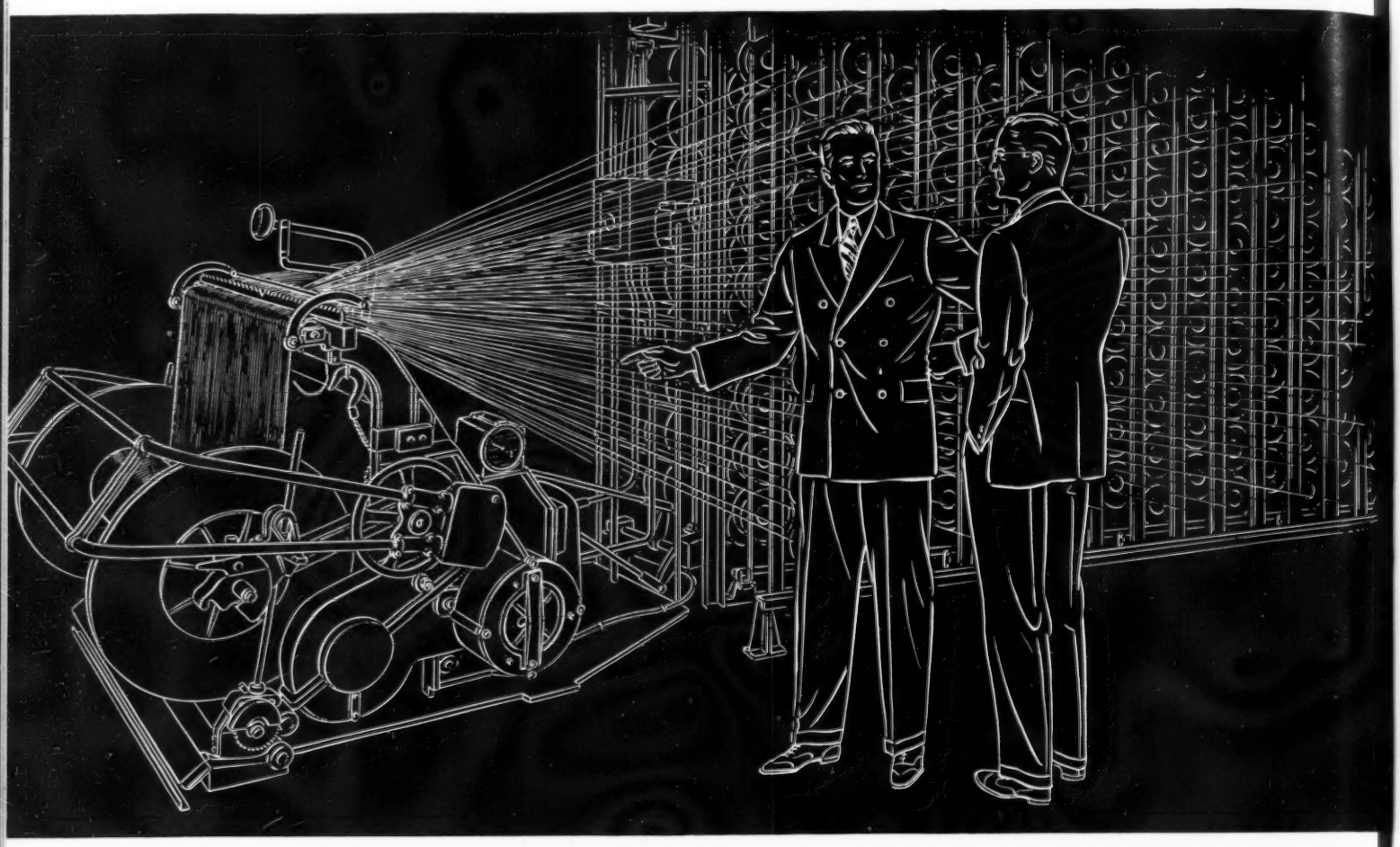


ESTABLISHED 1866

TORRINGTON

needles and sinkers

What advantages are you looking for in your WARPING MACHINES?



IF you are planning to *buy* new warping equipment, you are probably looking for machines that will enable you to speed up production to keep pace with current demands. And undoubtedly you want to reduce your costs to make operations more profitable—to make savings in your power bills, or to reduce the cost of maintenance and repairs.

If you *build* warping machines, you are looking for ways to make your product more efficient—to give it extra advantages that will boost sales, and still keep your manufacturing costs down.

The Torrington Needle Bearing offers to both users and builders of textile machinery an opportunity to obtain the advantages they want. Because it is a true anti-friction bearing, it allows machines to be operated at higher speeds, with consequent increase in output. At the same time, it increases machine efficiency by reducing power costs. Because capacity is high and lubrication is efficient, the Needle Bearing will operate for long periods of time without replacement, and with little need for service attention. And because it is low in cost and easy to install, the machine builder can utilize it to improve his product at surprisingly little expense.

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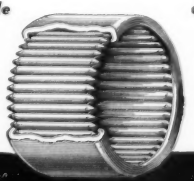

TORRINGTON NEEDLE BEARING

Seamless

Drastically advanced prices for cotton yarns over the last month coming at the same time that a higher wage minimum has been recommended for the seamless industry have brought about a more active and strong situation in seamless hosiery. They cannot fail to bring revisions in prices of seamless hosiery all along the line down to the consumer. The advance in sales cotton yarns alone has been drastic and coming with higher wages means either that manufacturers of cheap lines will have to use cheaper grade yarns and knit a different type stocking or else the retail tickets will have to undergo some upward revision. It is stated a 3 per cent increase in the wage bill of southern mills would result if the minimum is set at 36 cents. Some large chain buyers feel manufacturers could absorb these higher costs but knitters assert this is "wishful thinking". It is probable both quality changes and price changes will be seen to prevent too sharp goods increase. Shipments of women's seamless in the first two months were about 4 per cent smaller than a year ago.

Underwear

Underwear manufacturers are rushed with orders and many have for the present withdrawn prices. This does not mean in all cases that they are fully sold ahead as far as they want to go but that they want to keep some production back, for instance, in case the Government needs large additional production quickly. But manufacturers can obtain about all the light and heavyweight business they want. They are going slowly with future selling and on the other hand there are many buyers who do not realize that abnormal conditions are present which make for higher prices.

The cotton yarn advance has been marked and manufacturers of civilian lines are unable to get delivery of all the single combed yarn wanted. An indication of this was seen early in April when the Navy Department relaxed specifications for such garments, departing from the combed standard to state it would accept as an alternate garments made of double carded. But this type yarn is also well sold ahead and the civilian trade is unable to place as much business with spinners as they require. In fact all knitting yarns, carded and combed, are in a very tight delivery situation. This could become worse if the Government comes in the market for additional garments. Stiff price advances have been put into effect in many sections of the market, especially in sweat shirts.

FORECAST

(Opinion submitted by COTTON's market correspondent)

Philadelphia, April 16, 1941

SOME ECONOMISTS declare that the United States in the present emergency can have both "cannon and butter". They mean the country and its productive machinery are so great that we can produce all the armament that we and the democracies of the world need and at the same time keep on producing all the consumer goods we require such as refrigerators and automobiles, to mention two prominent groups. But there are many others who see the next year making important changes in this connection.

They believe more and more industries will within this time be affected in such a way that more of their production will go into armament lines or else more of their goods will go to our own military forces or the democracies such as England, Greece and China. It is a certainty that continuation of the military preparation in this country is going to keep our industrial machine at full rates and then some, so that there is bound to be a "reaching" for goods for civilian lines. This always results in higher prices and the textile industry is seeing this right now.

Chances are this industry as well as others will have to make new adjustments in the year that until recently could not be imagined. For the textile industry this could mean that still larger percentages will be taken for the armed forces of this and other countries. It could mean more wool for the armies and less for civilian use; it could mean that silk would be unobtainable in large amounts so that hosiery and other trades would have to turn to other commodities. Manufacturers will have to expect coming priorities in their production and in some lines they will see Government price ceilings made effective.

Yet on the other hand a far-seeing manufacturer and industrialist must always take into consideration what would happen if peace, which looks far off, should come suddenly. Such a time in the past has always meant a painful period of readjustment back to a peace economy from a war rush period. This country already is making plans to make this adjustment period as easy as possible but it is a contingency that demands attention.

With these trends to be watched, textile manufacturers have seen their own activity spurt much more in the month; they have seen deliveries become tighter; they have seen goods buyers "reaching" for goods; they have seen cotton display a very firm tone with other textile fibers strong but not much higher in the month. At the same time wage increases have been more numerous throughout the industry. These developments mean higher costs and there is little the Government can do to keep prices down under such conditions. They are signs of a gentle inflationary trend which is apt to continue so long as the emergency lasts and as long as the Government does not by new laws fix prices for business generally. But conservatives always say that inventory profits never stay in a business long.

There are also reports a new minimum wage will be recommended for this section of the knitting industry.

36-Cent Seamless Hose Wage Minimum Recommended

A 36-cent minimum wage was unanimously recommended by the Seamless Hosiery Industry Committee under the chairmanship of G. Allen Dash, Jr., of the University of Pennsylvania, in a report submitted April 8 to General Philip B. Fleming, administrator, Wage and Hour Division, Department of Labor. The committee also adopted a resolution suggesting to the administrator that September 15, 1941, would be a desirable date on which to make effective a wage order approving the committee's recommendattion. At present the seamless hosiery industry is operating under a 32½ cent minimum established by an order issued by the administrator effective September 18, 1939.

It is estimated that there are 62,000 workers employed in the industry of whom 27,000 now receive less than 36 cents an hour. It was determined by the committee that labor costs will not be affected by the establishment of the recommended minimum to an extent which will substantially curtail employment or cause material dislocation in the industry as now carried on. The committee was also convinced that its recommendation will not give a competitive advantage to any group in the industry.

For the purpose of the recommendation the following definition of the seamless hosiery industry was issued: "The manufacturing or processing of seamless hosiery, including among other processes the knitting, dyeing, clocking and all phases of finishing seamless hosiery but not including manufacturing or processing of yarn or thread."

At the hearing President Earl Constantine of the National Association of Hosiery Manufacturers, presented a brief against the increase and Taylor R. Durham, executive secretary, Southern Hosiery Manufacturers Association, offered considerable criticism of the report prepared by the Wage and Hour Division on which the committee based its conclusion concerning a new minimum for the seamless hosiery industry. Mr. Durham declared that the report either carelessly or purposely avoided any mention of the serious effects an increased minimum would have upon the large segment of industry located in the Southeastern States in which approximately 75 per cent of this industry is located.

President Constantine declared that no evidence exists that cost of living or other basic conditions have changed in the eighteen months since the 32½ cent minimum was put into effect, to a degree to warrant any different conclusion than that which was arrived at in the wage order of August 19, 1939. He said that the costs of living show a very insignificant net increase since that date and he went

on to declare that the imposition of the 32½ cent minimum has resulted in curtailing employment by at least 4 per cent which he asserted is a substantial amount. He said also the present minimum of 32½ cents results in average earnings in the industry which compare favorably with earnings in other similar industries, bearing in mind the fact that most seamless hosiery plants are located in small communities where living costs are lower.

Labor Department Analyzes Seamless Wage Increase

Whatever minimum wage per hour is imposed upon the seamless hosiery industry, according to a survey by the Wage and Hour Division, Department of Labor, the average effect on costs will be only about one-third as great as the effect on wage bills alone. The survey which served as a basis for the April 7 discussion among trade, labor and public interests includes a chart showing the problematical effect on wage bills if the minimum per hour is raised from its present base of 32½ cents. At 35 cents an hour, for example, the average wage bill would rise 1.8 per cent; at 40 cents it would rise 7.5 per cent. The percentage of increase would naturally be higher in the South than in the North, the study pointed out. The report also said the apparent indirect effect of the 32½ cent minimum was less severe on the relatively low wage plants than on relatively high wage plants. On the subject of automatic and converted transfer machines for men's goods the report expressed some surprise at the relatively low proportion of automatics and converted transfer in 208 plants chiefly making goods to fit into retail brackets of over 10 cents and under 16 cents per pair.

Nylon Has Rival in Crepe de Chine

There is evidence that nylon full-fashioned stockings are to have their greatest competition in the coming months. Interests identified with crepe de chine silk yarn have begun an active promotion of their product and merchandise made from it. A feature of a display recently in New York was a large cartoon entitled "The Worm Turns". Claims made for crepe de chine hosiery by its sponsors include those that impartial tests show crepe de chine snags less readily than nylon stockings and that crepe de chines cost less per day of wear.

Crepe de chines, it is contended by these interests, give better ankle fit than nylons, have a silk soft hand as compared with nylons' "cold, metallic feel" and have a warmth quality which nylon does not possess. A chart of wear tests results claimed average wear of twenty-three days for 3-thread, 45-gauge crepe de chine and thirty days for 3-thread, 51-gauge with a note that more than 50 per cent of the hosiery tested failed due to holes in the heel and toe. Using this average wear, a cost of 4.25 cents per day for the consumer was claimed on a stocking retailing for 89 cents a pair as against a stated cost of 6.13 cents per day for nylon stockings selling for $1.35 with an average of 22 days' wear.

Crepe de chine stockings are now being manufactured by 34 mills. At the display in New York samples of the following mills were shown, Apex, Wildman & Schwartz, Roxborough, Real Silk, Strutwear, Kayser, Franklin, Mock-Judson-Voehringer, Nolde & Horst, Colonial, Berkshire, Orange Knitting, Scott Bros., Magnet, Largman & Gray, Virginia Maid, Cooper-Wells, Durham, Oakbrook, and Pohatcong.

A booklet devoted entirely to silk hosiery was issued by the International Silk Guild and in it the new crepe de chine stockings were discussed. "Crepe de chine," says the booklet, "is the name given by its inventor to a silk hosiery yarn having a twist construction similar to that in the beautiful sheer dress fabric of the same name but so processed as to make it practical to be used for the first time in hosiery and imparting to the yarn special properties heretofore unobtainable in silk yarns of a similar twist." Advantages of crepe de chine stockings are listed as compactness, sheerness plus dullness, elasticity, snag resistance and strength. It pointed out there were on February 15 only three throwing plants licensed to throw silk of this particular twist with all the

An Eye on the Knitting Mills

Franklin Process Company, Providence, R. I., will build an addition to the dyeing and bleaching works. A new laboratory unit will also be built. Cost of entire construction, with equipment, is $60,000.

Craig Waters, formerly associated with the Elliott Knitting Mills, has started a new hosiery mill at Catawba, N. C. It is reported that there are 20 knitting machines in the mill, and auxiliary equipment.

Gloversville (N.Y.) Knitting Company, manufacturer of knit gloves for women and men, has made plans for a two-story addition to the branch mill at Schenectady, N. Y., estimated to cost about $50,000 with equipment.

Machinery is being installed in a building at Kernersville, N. C., where Sam F. Vance, Jr., and H. E. Crawford have formed a company for the manufacture of infants' hosiery.

The General Assembly of the state of North Carolina has passed a bill providing for a $100,000 textile school, probably to be established in Charlotte or Gastonia, N. C.

Early Bird Hosiery Mills, Hickory, N. C., is a new concern which will manufacture half-hose and anklets. It was established by P. A. Mullins.

Portage (Wis.) Hosiery Company will build an addition to the present mill. Cost is reported to be about $65,000 with equipment.

Gann Hosiery Mill, Durham, N. C., has an expansion program under way, which will include installation of 30 new machines.

Georgia Knitting Mills, Barnesville, Ga., may rebuild the portion of the mill destroyed by fire. Loss was reported to be about $16,000.

Princeton Knitting Mills, Inc., Watertown, Conn., will build a three-story basement addition.

Eton Hosiery Mills, Inc., Closter, N. J., have recently been chartered with a capital of $20,000.

Kate Dye Works, Inc., Newark, N. J., has been incorporated with capital of 2,000 shares of no par value stock.

Manchester Knitwear, Inc., Long Island City, N. Y., is a new concern which will manufacture outerwear.

Silver Line Dye Works, Inc., New York City, have installed a second nylon hosiery pre-boarding unit.

Dolly Hosiery Mill, Valdese, N. C., is constructing a new building, which will double the capacity of the plant.

F. K. Wilkins has secured permit to construct a hosiery mill at 2210 High Point Road, Greensboro, N. C.

Delaware Silk Hosiery Mills, Inc., Seaford, Del., has begun installation of additional equipment.

Bear Brand Hosiery Company, Henderson, Ky., plans to install machinery for the dyeing of yarn.

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patented processes that are involved, commenting that it is therefore important for buyers to determine that they are getting true crepe de chine.

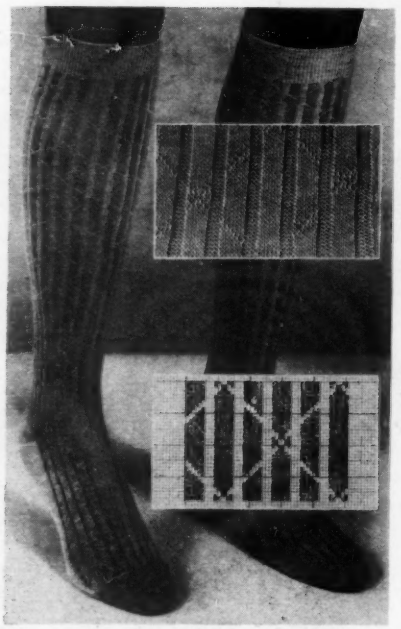
Nylon Seamless Hosiery on Retail Sale May 15

Women's fine gauge seamless nylon stockings will go on sale to consumers in limited quantities and in a limited number of stores about May 15. Produced at the start by four manufacturers seamless nylon hosiery will retail at a minimum of $1.15 a pair according to present plans and the stockings will be 340-needle and finer. None of them will have mock seams in the leg. The manufacturers' price on 340-needle merchandise will be about $8.25 a dozen. It is reported the following mills have been running experimentally for some time on stockings of this type: Hanes Hosiery Mills Co., Winston-Salem, N. C., the largest producer of women's seamless hosiery; Concord (N. C.) Knitting Co., Bear Brand Hosiery Co., Chicago; and Harriman (Tenn.) Hosiery Mills.

Hanes has the largest installation of 340-needle women's seamless hosiery knitting machines in the country and it is reported its equipment of this type is about equal to that in all other domestic mills. Seamless knitting machines as fine as 400-needle roughly equivalent to 51-gauge full-fashioned machines in the fineness of their product are now available to hosiery manufacturers and a few of such machines are now in operation. The du Pont Company, producer of nylon yarn, has made no official statement regarding the launching of seamless nylon but it has been reported that the company regards the introduction of the new numbers in the light of a test of the worth of seamless nylon hosiery. The yarn manufacturer's position is declared to be that the seamless stockings will have to prove themselves and demonstrate their market possibilities in price brackets approximately the same as those for nylon full-fashioned.

Advantages of the nylon seamless product over other seamless hosiery is that it will be pre-boarded which will give it a shape which it will retain causing the hose to avoid the barrel-like form which has been the disadvantage of the seamless hose when compared with the full-fashioned product. In the hosiery market comment has been that one trouble in the past has been that the absence of a seam has suggested a poor fit and other buyers insist that the seam down the back of the leg has a slenderizing effect which is desirable. On the other hand, it is felt that the new nylons without a mock seam would emphasize a bare leg effect. The actual merchandising of the new stockings next month will prove which of these two theories is correct but it is emphasized that in any event the initial offering will not be large. Nevertheless the reaction of consumers to this new product will be eagerly watched.

Uncle Sam's Campus Socks



Links-and-Links 6x3 rib, argyle-design campus socks of improved lisle construction, knit two ends on 200 needles, 3½-inch diameter cylinder.

Latest to receive attention from the Bureau of Home Economics are campus socks. Work was started about a year ago, for the purpose of improving both appearance and wearing qualities of these socks. Two varieties of American-Egyptian cotton were used—both grown in Arizona.

The 90s/3 lisle yarns—made with Z-S twist and having twist multiples of 3.75 in the single (35.56 t.p.i.) and 4.25 in the ply (23.28 t.p.i.)—were combed, gassed, and mercerized. Six Links-and-Links patterns were designed, and the socks dip-dyed old-glory white, old-glory blue, old-glory red, Havana coral, blue canyon, rico sand, California sun, desert tan, Sierra rust, palm-tree green.

The Bureau of Home Economics has distributed these campus socks among girls at Hood College, Frederick, Maryland; Greenbelt High School, Greenbelt, Maryland; and Wilson College, Chambersburg, Pennsylvania, to be given wear tests.

The campus socks, a closeup of the fabric, and pattern design are shown in the accompanying illustrations.

Wyner Is Elected Outerwear Head

Rudolph H. Wyner, president of the Shawmut Woolen Mills, Stoughton, Mass., was elected president of the National Knitted Outerwear Association at the twenty-third annual convention in New York early this month. Mr. Wyner succeeds Col. Roger W. Whitman, president of the American Hosiery Co., who is now in active military service. Mr. Whitman has been president for the past two years and was given the distinction by this association of being named honorary president. Sidney S. Korzenik was renamed executive secretary and counsel and Irving Saltzman, treasurer. District vice-presidents chosen were: Benjamin Schanzer, Arthur J. Reinthal, Abraham Liebster, Edgar W. Stewart, and John S. Sand. The Wool Products Labeling Act and its effect on the industry was one of the main topics of discussion.

A. W. Zelomek, statistician who spoke on the wool market, said there was nothing he could see to stop general business from reaching a new high in 1941, predicting that consumer's means and retail trade would reach new highs. On the wool situation he said there would be a tight supply in 1941 but not necessarily a shortage although it was not necessarily true that there would be a sharp rise in prices. In the event of this country entering the war he predicted that prices would advance and that there then would be a further gain in business in sweaters and knitted dresses.

Hosiery Association Asks Marking for One Stocking

The National Association of Hosiery Manufacturers in a brief presented to the Federal Trade Commission, April 2, in Washington requested clarification of provisions to require the marking of only one stocking in a pair. Its brief covering Rule 10 said, "In view of the fact that the product of our industry invariably consists of two separate pieces but such pieces are identical in character and are usually attached together against separation and the additional fact that in the proposed Trade Practice Rules for the Hosiery Industry recently made public by the Federal Trade Commission, fiber identification on only one stocking of a pair is required, we assume that hosiery wool products will fall within the exception of the rule as the trade practice rules for the hosiery industry will specifically authorize another form of marking. As the practical considerations which led to the provision of re-

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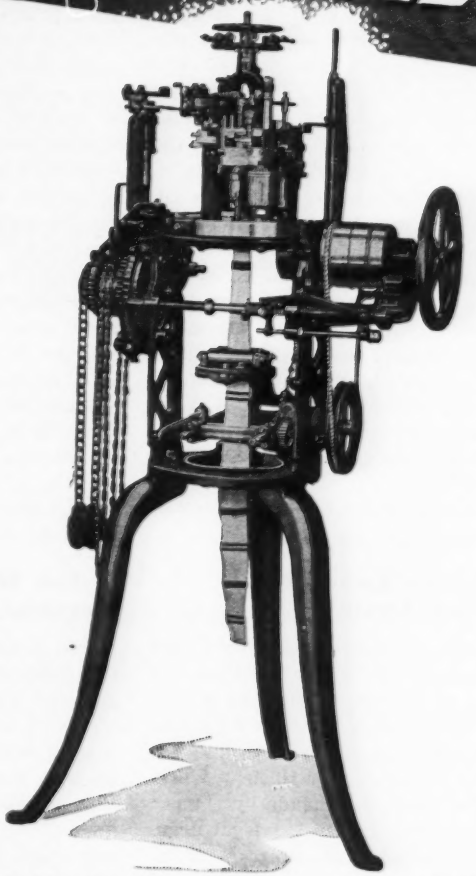

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quiring the marking of only one stocking are well known to the commission we do not feel it necessary therefore to present them herein." The hosiery association brief also covered rules for the marking of wool products in which several changes were recommended.

Manufacturers See Cheap Hosiery Price Advance

An increase in the minimum wage for seamless hosiery mills to 36 cents would drive hosiery retailing for 10 cents a pair out of the market according to seamless hosiery manufacturers who met under the joint auspices of the National Association of Hosiery Manufacturers and the Southern Hosiery Manufacturers Association. But in contrast to this viewpoint, a hosiery buyer for a large chain asserted that 10-cent hosiery would remain on the market even if a minimum as high as 40 cents an hour should be established. He said that quantities of the low-end goods would be reduced considerably if present quality standards were to be maintained but that at least for a time the 10-cent hose would not disappear from the counter. Several retail buyers claim that manufacturers could reduce the quality of their cheaper lines of hosiery as a means to offset the increase in cost recently incurred by the advance in cotton yarns and that a further lowering would be made to offset the coming wage advance.

Berkshire Labor Case in Court Again

The National Labor Relations Board was accused of procrastination in bringing to the courts the long-drawn-out dispute between the Berkshire Knitting Mills, Reading, Pa., and the American Federation of Hosiery Workers. The charge was made by counsel for the firm in presenting legal arguments in the United States Circuit Court of Appeals, April 7, on the company's petition to set aside N.L.R.B. order for reinstatement of 800 employees who walked out in a six month strike in 1936-37. The N.L.R.B. previously had ordered the firm to give back pay to the strikers and to disestablish the Berkshire Employees Association as a bargaining agency. The court reserved decision.

Strike at Interwoven Plant

Late in March a strike developed at the Interwoven Stocking Company, Martinsburg, W. Va., employing about 1500 persons. In commenting on the walkout John Wyckoff Mettler, president of the company termed it as one "to compel members of the union to remain in the union and pay their dues." Mr. Mettler added that his company was unwilling to sign any agreement requiring discharge of an employee as a result of union demands. The company had already offered to raise rates 5 per cent April 1 and 5 per cent more July 1. The union originally demanded 20 per cent but later showed a willingness to accept 10 per cent if granted along with its other demands. Mr. Mettler added they have never refused or failed to bargain with the union.

Rising Underwear Costs Cause Style Changes

Notwithstanding sharp increases in knitters' costs due to higher cotton yarn prices and higher wage levels some lines of underwear are selling at prices showing very little change. Yet it is predicted these factors will shortly have a greater influence and will lead to the total withdrawal from the market of some underwear styles. Entering the picture at this point is the Government's large defense needs in underwear. Citing garments made of two-ply lisle in connection with the defense program one underwear manufacturer said, "The best information we can get is that the two-ply mills are sold up for the balance of the year because of Government requirements. What little yarn we have been able to secure thus far has been at almost prohibitive prices and therefore garments of this kind are in for a big price advance in the very near future."

Nylon Hosiery Percentage Gaining

The comparatively new nylon full-fashioned hosiery business reached 15 per cent of the total of all mill shipments of women's full-fashioned stockings in February. This report as compiled by the national association shows that the new hosiery made up this amount and as against deliveries of silk hosiery alone was as much as 17 per cent. February shipments of nylon stockings reached the highest monthly figure yet attained being 468,000 dozens. In view of the fact that hosiery manufacturers who are able to get nylon yarns continue to trade the new hosiery for a large percentage of their silk goods it is claimed that the older end of the business is being supported by its new rival. This makes the position of hosiery mills not on the nylon yarn list an increasingly difficult one which is reflected in an unhealthy price situation in some sections of the hosiery market.

Imports of Hosiery Decline

Hosiery imports of all types were sharply smaller in February, the total for the month being 103,501 dozens compared with 169,568 dozens for that month a year previous. The report of the National Association of Hosiery Manufacturers shows there was a decline in imports of cheap cotton numbers from China and Japan and also in wool numbers from Great Britain. China, which has been the source in recent months of so much of the cheap cotton numbers, sent only 45,393 dozens this February compared with 76,500 dozens in February last year. Imports of wool hosiery from the United Kingdom this February were only 5,632 dozens against 12,172 dozens a year ago. This reduction is attributed to the war and shipping hazards.

Vogue of Longer Cotton Stockings

The hosiery industry sees positive signs of a new vogue for longer stockings of cotton in misses' and children's numbers. The favorable response of the public last fall to the below-the-knee numbers known as campus socks is continuing in plans for next season. Buyers are reported to be operating on next fall lines and giving attention to the even longer over the knee stockings.

Full-Fashioned Management

(*Continued from page* 128)

a comparable fabric to silk in texture. The two methods in use today for setting nylon hosiery will make a difference in the total course count from one to the other. There is about an inch or so gained in lengths by the pre-setting method over the pre-boarding method. Nylon goods pre-set in a vapor cabinet without boarding do not shrink as much as the same goods pre-boarded in a retort.

In the calculation of needle widths for new styles, it should be borne in mind that no less than four needle variations are possible in the instep widths. As each carrier requires two needles or one sinker space, the number of needles in the instep must always be divisible by "4". In estimating the total number of courses in the main leg between the sub-welt and the point where the three-carrier attachment is disengaged in the heel, the number of courses must be divisible by "6". Due to the fact that six courses are required to complete a cycle of the alternating attachment and, as it is more practical to disengage it at a point where it will be in readiness for the next set, the foregoing precaution will be found helpful.

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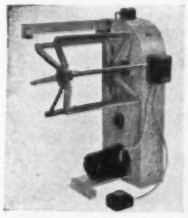

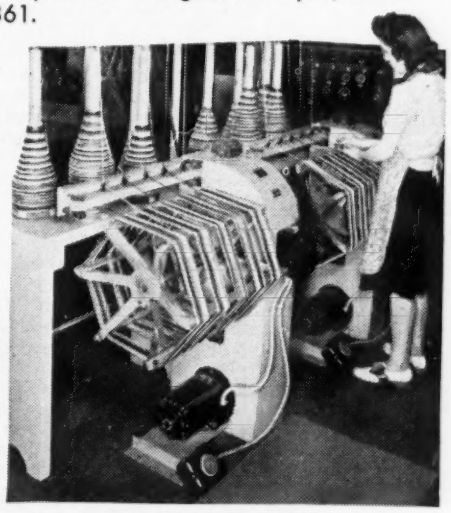

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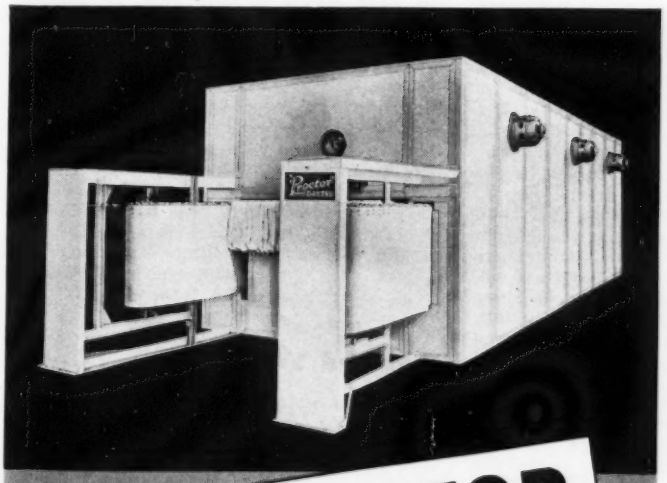

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TRENDS—YARN MARKETS

Cotton Yarn Advance of Major Importance to Knitters—Higher Mercerized List Probable—Worsted Counts Also Register Gains In Month—Silk Steady But Not Changed Greatly—Rayon Yarn Advance Predicted

Philadelphia, April 16, 1941

COTTON YARNS have advanced in the last month approximately four to seven cents so that with price increases registered in previous recent months this means an advance of sufficient importance to interest knitters and retailers alike. It may mean higher costs clear down to the consumer and already talk is heard that the 10 cent anklets and such, may be a thing of the past in the not distant future. Silk has been steady but it did not advance as in the previous month, backing off some from the $3.00 level for raw silk but further increases have come this month in worsted yarns and at present these like cotton yarns are almost nominal for the first in years due to spinners' well sold up condition and their unwillingness to accept much business ahead. Rayon yarns are strong and while no new list has come out this is talked of in the trade as a possibility.

Cotton Yarn

The sharpest advance in recent years occurred in sales cotton yarns over the last month, increases varying from four cents to eight cents a pound. As these latest increases follow those of recent previous months it means that buyers are compelled to pay much higher prices than a few months ago and compared with the previous peak in 1937 carded yarns are very close to that level while combed yarns are now several cents above the 1937 level. The most excited section of the yarn market this month has been in carded knitting where the increases have been from five to seven cents a pound so that underwear manufacturers are being quoted on the basis of 31 cents for 10s cones as compared with 25 a month ago or they are quoted 41 cents for extra quality 30s compared with 33 cents for the same spinnings four weeks ago. As might be expected buying interest has been the heaviest in years with knitters now paying more attention to deliveries than they are to prices being quoted them by spinners.

In fact, some spinners are frank in saying that they have been trying to discourage buying by quoting prices above the market but so far this has had the opposite effect, causing knitters to reach even more in their attempt to protect themselves against yarn shortages which may or may not develop in the future. Notwithstanding the sharp increases that have been reported previously in combed knitting yarns these qualities have advanced further this month with some spinners quoting three to five cents a pound higher on 30s single than a month ago. One large spinner who was quoting 43 cents for this count last month at the middle of April was quoting 47 to 49 cents. Even at these higher prices it impossible for a new customer to place a contract for delivery before next fall.

Combed spinners are sold ahead for about five months and while carded spinners were not in such a favorable position they have just become so through the large volume of contracts booked late in March and during April and many carded knitting yarn spinners are unable to promise deliveries on new contracts before August or September. Recently the Navy Department taking note of this situation changed its specifications for under shirts permitting manufacturers to bid upon garments made from double carded yarn whereas they had been willing to accept only those made from combed yarn but even so indications are this will not greatly facilitate deliveries because double carded knitting yarns are sold ahead almost as solidly as combed. Even though combed yarns have advanced further the list for mercerized yarns which became effective March 10 has not been changed so that the price of 82 cents for 60s two-ply ungassed remains in effect at this time although an increase is looked for shortly.

Silk

Raw silk has been steady but the price fluctuations in it have been small this month. During this time interest from knitters has been slightly improved over previous recent months which has been due in part to the exceptionally good Easter volume that the hosiery industry has experienced and it has been better also because some hosiery buyers still believe there will be trouble in the Far East which would endanger the chances of getting silk delivered on time. There is also a better sentiment regarding silk among full-fashioned hosiery manufacturers who have been producing the new type crepe de chine twist stockings which many believe will, during the coming months, regain for silk part of the ground which has been lost in the last year to women's nylon full-fashioned.

Deliveries of raw silk to American mills in March amounted to 25,828 bales which represented a drop from the deliveries in February when the total was 28,111. The deliveries of raw silk in March 1940 were 21,865 bales and in March 1939 they were 37,863 bales. Stocks on hand totaled 49,904 bales and imports totaled 21,626 bales and it was estimated at that time there were 17,600 bales of raw silk in transit. On March 1, 1941, total stocks of machine reeled stocks in Japan were reported as 242,000 bales compared with 221,000 bales December 1, 1940. Of the stock held March 1 of this year 118,000 bales were in Government hands leaving only 126,000 bales of free stock. During February of this year the United States hosiery industry used only 17,624 bales and the National Association of Hosiery Manufacturers points out that this was the smallest of any February in the last seven years.

Rayon

There is considerable discussion about a possible increase in rayon yarn prices within the next few months, many feeling that this will come before the new season or for June or July deliveries. Although some believe that yarn prices could be held at present levels profitably most take an opposing view due to higher labor costs and higher prices for several raw materials. Deliveries of rayon filament yarn in March amounted to 35,200,000 pounds in March 1940. Deliveries for the first quarter of 1941 totaled 101,100,000 pounds which was an increase of 11 per cent over deliveries made during the corresponding 1940 period. Stocks of yarn at the end of March were slightly smaller totalling 9,700,000 pounds.

Worsted Yarns

Worsted spinners are so well sold ahead that manufacturers are complaining that they are not able to place new orders which spinners are refusing to accept. At the same time knitters complain that deliveries on present contracts are as much as a month late. In view of this worsted yarn prices are almost nominal because of the well sold ahead condition of the spinners who are hopeful that this tight delivery condition will become easier by summer after a considerable portion of current military orders are out of the way. But in this connection reports have recently come from the authorities in Washington that by June 15 the Army will be in the market again for large amounts of wool goods which probably will be heavy enough to continue the present seller's market in worsted yarn. Spinners are quoting nominally 2-20s, 50s, Bradford at $1.45 compared with $1.40 a month ago with other counts up in about the same proportion.

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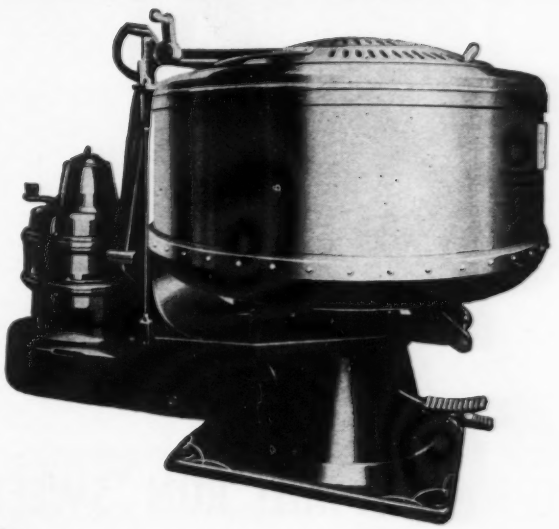

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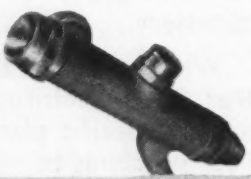

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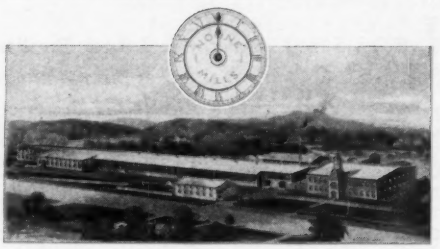

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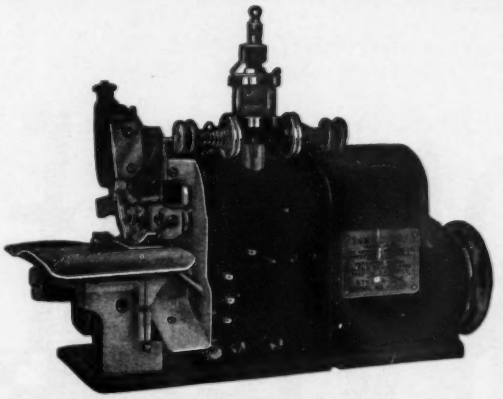

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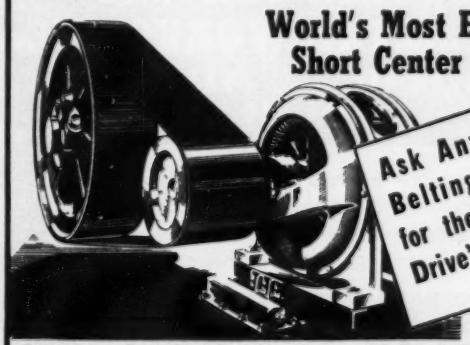

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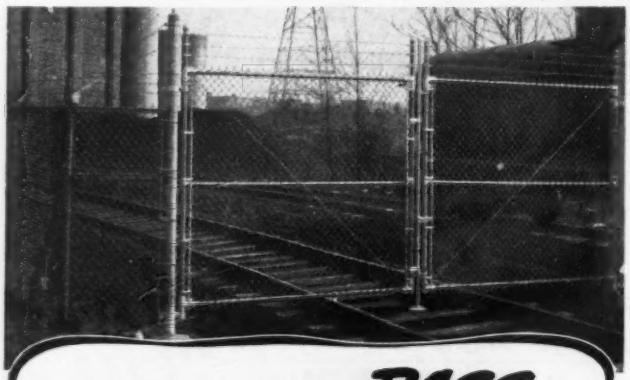

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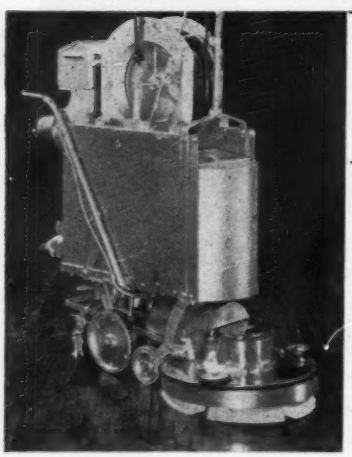

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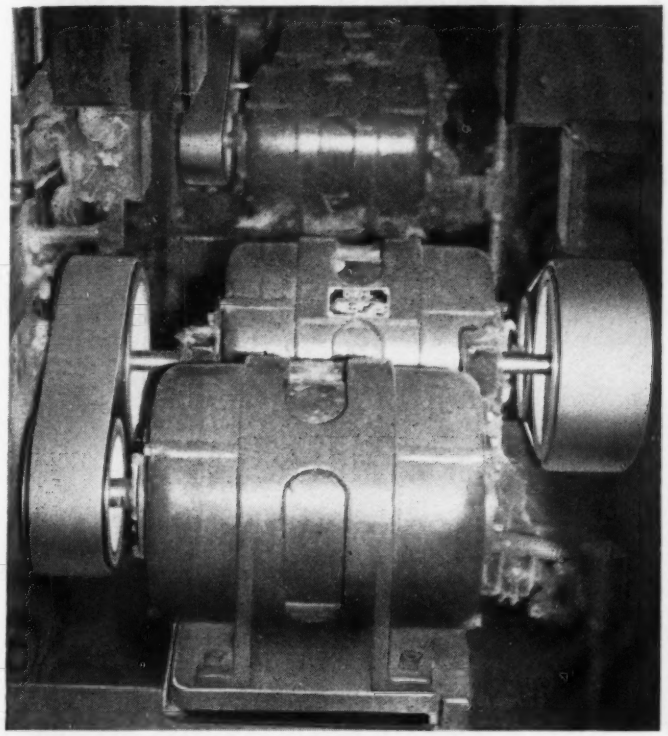

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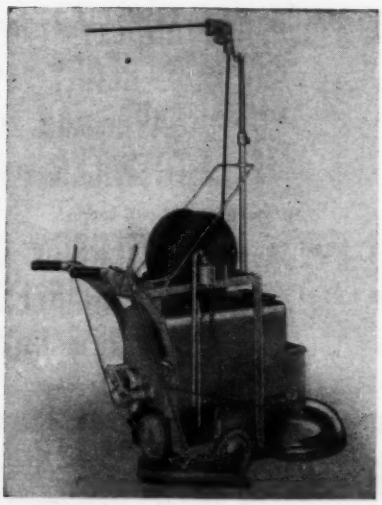

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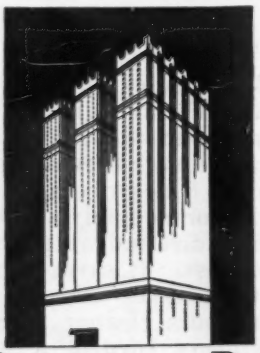

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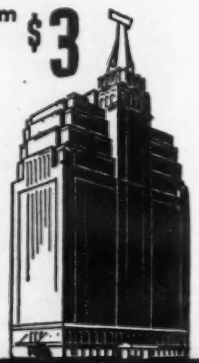

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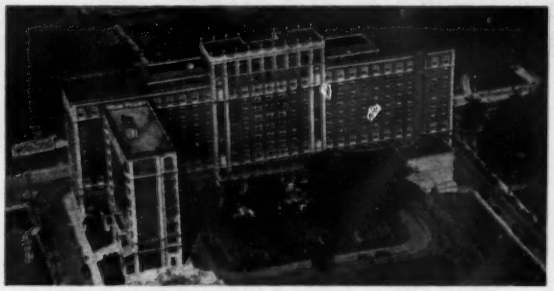

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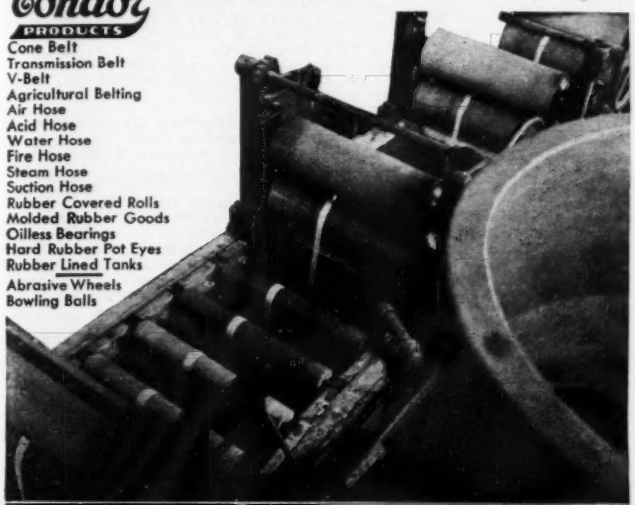

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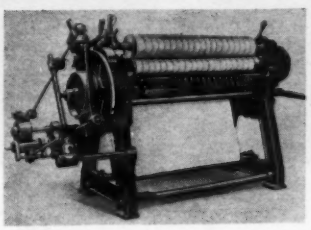

A well-known manufacturer of corsets says:

"The CAMACHINE purchased from you several years ago has been one of our most profitable investments in equipment.

"The absolute accuracy in cutting our strippings and linings on this machine has given us much greater efficiency, and the problem of waste has practically been eliminated. We have had little expense in the twelve years the machine has been in operation."

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There are new developments in the use of alkalies that have an important bearing on processing methods in your industry—that affect definitely your ability to keep ahead of competition.

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60th ANNIVERSARY 1881 • 1941

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Alkalies and Chemical Products Manufactured by The Solvay Process Company

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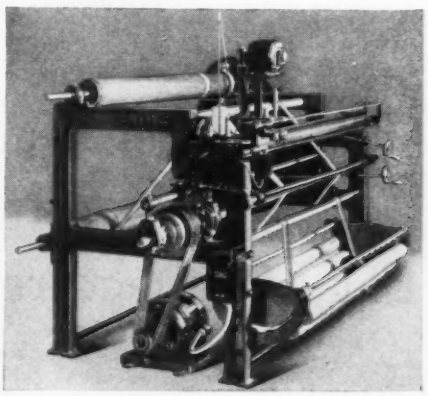

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(up to 38" dia.)

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TRYON PROCESSING COMPANY

TRYON, N. C.

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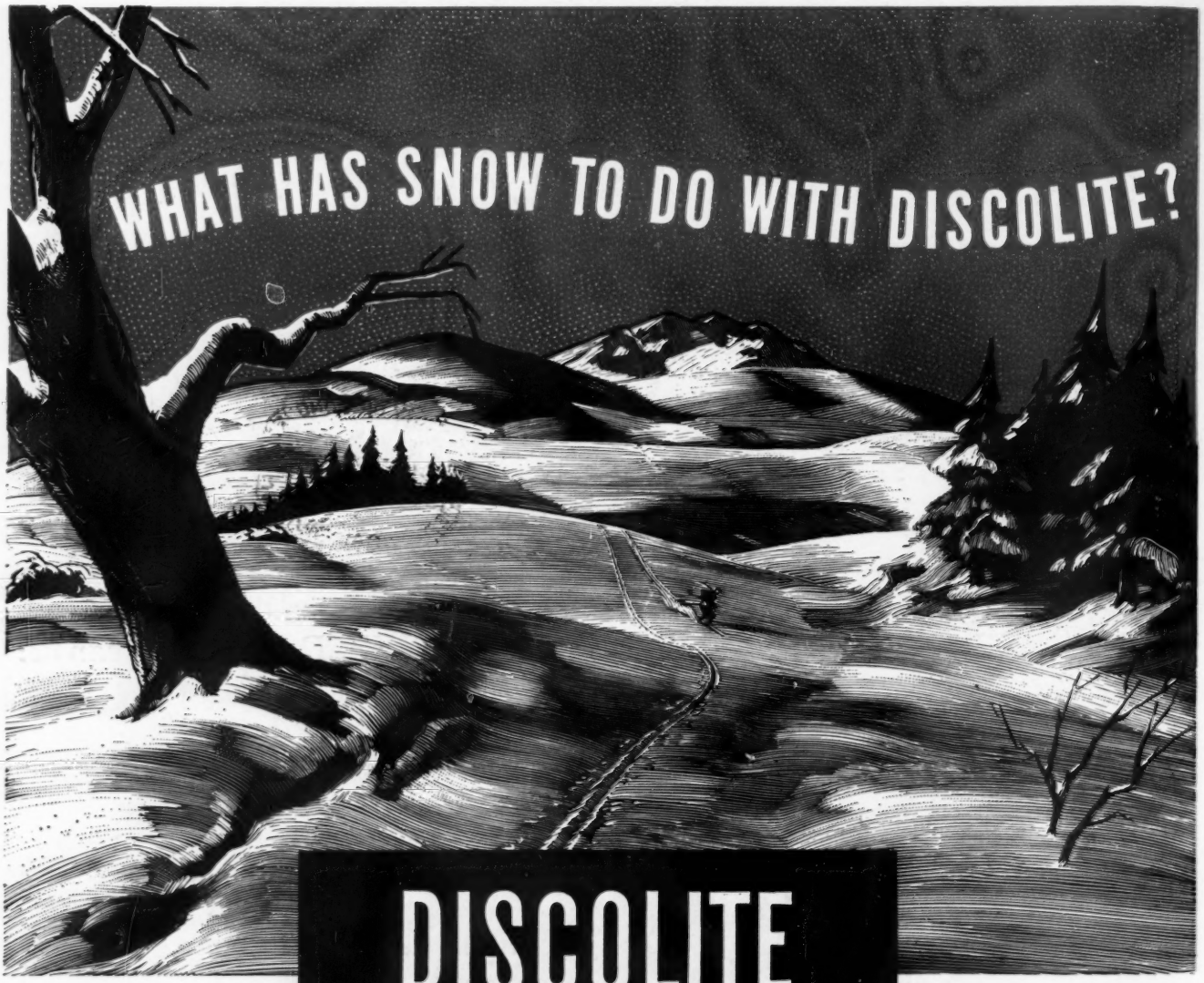

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